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HYGEIA

THE HEALTH MAGAZINE

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HYGEIA

THE HEALTH MAGAZINE

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Who's Who in This Issue

DR. W. W. DUKE, who describes the curious condition of food sensitivity in the leading article this month, has made original studies on this subject. He is a former president of the American Allergy Association. DR. C. A. ALDRICH is a specialist in children's diseases.

DR. S. ELIZABETH VAN DUYNE is medical director of the girls' college of which she writes. DR. SMITH ELY JELLIFFE is a prominent eastern psychiatrist and neurologist. DR. JAMES O. NALL is an assistant editor of *The Journal* of the American Medical Association. His article was originally given as a radio talk from the headquarters of the Association.

DR. FRANK HOWARD RICHARDSON'S series on the runabout child is meeting a distinct need in advising parents of the toddler about his care and management. DR. CLARK W. FINNERUD, who discusses a malady that has been surprisingly prevalent in recent months, is a specialist in diseases of the skin.

DR. THURMAN B. RICE, professor of sanitary science in a university medical school, is a popular writer on health topics. DONALD A. LAIRD directs research in psychology at Colgate University. DR. ARTHUR J. CRAMP is director of the bureau of investigation of the American Medical Association.

DR. J. A. MYERS continues his stories of physicians who have had tuberculosis, yet have achieved fame. DR. T. H. SHASTID is a Wisconsin physician.

BLANCHE J. DEARBORN is well known to HYGEIA readers for her charming stories for children. KATHARINE RANGER, who has contributed another of her imaginative letters to foreign children to this issue, is an Indiana writer. PANSY NICHOLS is a frequent contributor of children's verse to numerous magazines.

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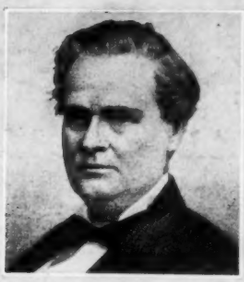
JAMES
MARION
SIMS

1813-1883



"SIMS, A KIND HEARTED BUT IMPULSIVE MAN, WAS ONE OF THE MOST ORIGINAL AND GIFTED OF AMERICAN SURGEONS."

Health Almanac

JANUARY, 1929

1 RESOLUTION:—"Let's all stay at home at least one night a week an' give somebuddy else a chance t' park."—Abe Martin.

2 "HOME," said the Tyrone Division Special, "is where you scratch any place that itches."

3 COME, YE COLD WINDS, at January's call,
On whistling wings, and with white flakes bestrew
The earth. —Ruskin.

4 "THERE ARE MANY TROUBLES which you cannot cure by the Bible and the hymn-book but which you can cure by a good perspiration and a breath of fresh air."—Beecher.

5 "THE HEAD learns new things, but the heart forevermore practices old experiences."—Pickup.

6 "A SCHOOL can teach medicine," says the Baltimore Sun, "but only years of practice will enable a doctor to prescribe for human nature."

7 "FLAPPER, never use again
Paraphenylendiamine
On your fur or face or hair,
Or anything that flappers wear."
—Keith Preston.

8 IT'S STRANGE, but the same rice that produces multiple neuritis because it's short of vitamins will give a bridegroom nervous prostration when it hits him at a wedding.

9 A NEW YEAR'S RESOLUTION is the most perishable thing in the world next to a hair-net.

10 MAN is the whole world, and the breath of God; Woman is the rib and crooked piece of man.
—Sir Thomas Browne.

11 "EGOTISM," said the Arkansas Gazette, "is the anesthesia that keeps some people on living terms with themselves."

12 SOME FORTY THOUSAND LAWS are proposed each year in the United States and more than ten thousand enacted. We manage pretty well, however, with the same old diseases.

13 "THE BROAD GENERAL RULE IS," says the Detroit News, "that a man is about as big as the things that make him mad."

14 "WOMEN ARE STRANGE CREATURES," says the Argus. "The white girls are paying as high as fifty dollars to have permanent waves put in their hair, while their more dusky sisters are willing to pay even more to have one removed."

15 ON THIS DAY all Christmas bills should have been paid but won't be.

16 THERE IS ONE WAY to stop any current craze among women and that is the Oriental custom known as total immersion.

17 ANTON PAVLOVICH CHEKHOV, famous Russian physician, better known as author and dramatist, was born, Jan. 17, 1860.

18 "TOOK MR. HOLLIARD to the Greyhound, where he did advise me above all things, both as to the stone and the decay of my memory (of which I now complain to him) to avoid drinking often, which I am resolved, if I can, to leave off."
—Samuel Pepys' Diary, Jan. 18, 1661.

19 WALKING is the best exercise and the cheapest.

20 A MIDDLE AGED MAN is one who has quit growing on either end but continues to grow round the middle.

21 "THERE IS AN OLD SAYING that interest does not bind men together: interest separates men; there is only one thing that can effectively bind people, and that is a common devotion."
—Harvey Cushing.

22 AN OUNCE of fresh air is worth a pound of cough syrup.

23 IN THE OLD DAYS when a woman sewed on tiny garments one knew what to expect; but nowadays sizes for six and for sixty years are almost the same.

24 A NEW YORK MAN asked for divorce because his wife slapped him during a bridge game, but most players cheer over any slam.

25 JAMES MARION SIMS, noted inventor of surgical methods and instruments, was born, Jan. 25, 1813.

26 THE CHEWING GUM BILL of our nation is almost one hundred million dollars per year not counting the cost of removing it from shoes or the seat of one's pants.

27 "THE DIFFERENCE between learning golf and motoring," says the Boston Transcript, "is that in golf at first you hit nothing and in motoring you hit everything."

28 Whatever the past year may have meant to you, make it dead history. But let the New Year be a living issue. With a big, fresh sponge, dripping with the clear water of forgiveness, wipe clean the slate of your heart.—Anon.

29 AS THE COLORED BOY SAID when he read the inscription, "Not Dead but Sleeping," on the tombstone: "He ain't foolin' nobody but hisself."

30 A COLLEGE EDUCATION, according to a Boston commentator, never hurt anybody who was willing to learn something afterward.

31 HE WHO HAS HEALTH has hope and he who has hope has everything.—Arabian Proverb.

M. F.

Our Idiosyncrasies to Food

By W. W. Duke

THERE is a condition called allergy that afflicts possibly 10 or 15 per cent of all persons. The condition is peculiar in that those who have it may become sensitive to a wholesome article of food, such as milk or eggs, a cereal, or a fruit or vegetable. Once sensitive, the victim is inclined to become ill whenever he eats the food to which he is sensitive. Sensitiveness in one person may be mild, but in another may develop to such an extreme degree that the food to which he is sensitive may come to rank with the poison of a venomous reptile in its capacity for causing illness.

Certain Foods Are at Fault

For example, certain patients happen to become sensitive to egg. Thereafter, they can be made ill by the eating of egg and, in extremely sensitive cases, by the eating of a quantity of egg that is so small as to be almost unweighable by delicate chemical scales. Certain persons happen to become sensitive to honey. Thereafter, they can be made ill by the eating of honey. I have observed several patients who were so sensitive to honey that they could not eat one drop without an illness characterized by nausea, vomiting and pain in the abdomen severe enough to simulate gall-bladder colic. These patients were not made ill by the sugar content of honey, but by an infinitesimal amount of some substance contained in honey that was derived from the flower from which the honey was obtained. It can be readily understood that this substance must have been ridiculously minute in amount because it is a known fact that if sugar is removed from honey by dialysis, and water is removed by evaporation, practically nothing remains.

Certain infants and certain adults are made ill by comparatively small quantities of milk; in fact, often by much less than one drop. Frequently, the illness can be traced not to the ordinary gross constituents of milk, such as fat or casein, but to a constituent that is derived from some food eaten by the mother or animal furnishing the milk.

This accounts for many sicknesses in infants who have eczema, asthma or stomach or bowel upsets caused by the mother's milk. The mother's milk can often be made to agree with the infant if certain articles of food to which the infant is sensitive are eliminated from the mother's diet. For example, mother's milk may disagree with a rice-sensitive baby if the mother eats rice. It may agree if the mother avoids rice.

Extremes in Egg Sensitiveness

I have studied three patients who were so highly sensitive to egg that they were invariably made ill by the eating of the trace of egg contained in hen meat. They could eat rooster meat with impunity. I have studied three egg-sensitive infants, each of whom seemed completely cured of chronic asthma or eczema when egg was excluded both from their diet and

This little boy began to grow rapidly after eggs were eliminated from his diet. As an infant he had such a hideous case of eczema caused by sensitiveness to egg that to print his baby picture would offend our readers.

from the houses in which they lived. Each patient, however, was subject to recurrences of asthma or eczema or both which seemed baffling indeed, until it was discovered in two of the cases, simultaneously, that if one of the parents ate egg while away from home and returned home soon thereafter to handle and kiss the child, the child in a short time would have an outbreak. It is actually a fact that a person can carry enough egg on his lips or hands to affect a highly sensitive individual on direct contact. Conversely, an infant excessively sensitive to egg can actually absorb enough poison from a mother's kisses to make it ill, if the mother has recently eaten egg.

I wish to assure the reader that the foregoing statements are not exaggerated. They are statements of clearly proved facts upon which almost all students of this peculiar subject can agree.

A New Kind of Fish Story

There are curious ramifications of illness caused by food sensitiveness. A patient who came to me with a strange history was found sensitive to fish. The patient, a man of about 50, gave a history of asthma of many years' standing. He said he had at odd times terrific attacks which he thought were due to heart failure and which he felt sure would some day prove fatal. He said the attacks would start suddenly with a feeling of tightness in his chest. This would be followed quickly with a generalized itching of the skin from head to foot, and redness of the skin. The itching would become so intense that he could hardly stand it. This would be followed within a few moments by a feeling of weakness, after which he would become prostrated to such an extent that he could hardly lift his hand. He would then lose consciousness. After a period of fifteen or twenty minutes, he would begin to recover and after half an hour or more would apparently regain the same degree of health that he had before the attack commenced.

The patient had had a number of these attacks. He remembered that three of them began after the licking of a postage stamp, one after picking up a bottle with a wet label, one after picking up a fish, and one after having put on a pair of shoes that had just been repaired by a cobbler. He was barely able to tear off the shoes before he lost consciousness.

Violent Reaction to Test

The patient, when examined, was found sensitive to fish and to fish glue. He had learned to avoid the eating of fish, because he found it made him ill. He had learned to avoid licking postage stamps and to keep away from wet labels. He was not aware of the fact, however, that the source of most of his trouble was fish or derivatives of fish. Fish glue had evidently been used in the repair of the shoes and contact with the glue was sufficiently intimate to cause a severe and actually dangerous illness.

The patient was tested by the application of a drop of a solution of fish glue to the skin. A huge hive appeared in a few moments at the site at which the glue had been applied. The patient then had one of the attacks which he had described. He became red, coughed violently, became asthmatic, made violent efforts to scratch himself, and finally cried out that he was about to die. At the beginning of the attack, the glue was washed from his arm and he was given several doses of epineph-

Abnormal chest development of a chronic asthma patient.

rine hypodermically. He soon recovered. He was given instructions to avoid fish and was advised to keep glue out of the house. His asthma, which had been due in part to slight contact with fish glue about the house, improved without other medication. It is interesting to relate that this patient was so highly sensitive that enough of the offending substance could be absorbed through the skin and through the membranes of the mouth to give rise to dangerous attacks of illness.

Allergy is a term now used to describe sensitiveness to a substance that is harmless to normal persons. It frequently gives rise to chronic diseases such as so-called hay-fever, asthma, chronic cough, hives, eczema, migratory swellings of the face, hands and feet, stomach and intestinal disorders, kidney and bladder disorders, convulsions, headaches, weakness and dizziness. Persons who have one of these symptoms can frequently be relieved in a remarkably simple way by an effort to discover a possible relationship between the illness and sensitiveness to the eating of a food. The error can then frequently be corrected. This is true whether the disease is acute or chronic, mild or severe.

The troubled face of a chronic asthma patient, in childhood and after the condition has persisted into adult life. Note the depression on each side of the nose caused, no doubt, by chronic edema of the membranes of the nose, which interferes with the proper aeration of the cells in the nose and therefore impedes their proper development.

A woman of 35, for a great many years had been a victim of chronic dyspepsia and abdominal disease characterized by vomiting soon after eating. This frequently occurred three times a day, and occasional attacks of pain in the abdomen would last from twenty-four to forty-eight hours, frequently requiring morphine for relief. The patient had been treated by many doctors, and her appendix and gall-bladder had been removed in an effort to relieve her symptoms. Finally, she was found to be highly sensitive to milk. She had learned instinctively to avoid milk because it disagreed with her violently, but the traces of milk that she ate daily in cooked foods such as bread and potatoes kept her almost constantly sick. Even beefsteak (containing possibly a trace of milk) would cause an attack of vomiting and pain.

Building Up Tolerance for Milk

The stomach, when first examined fluoroscopically, was so contracted and spastic as to appear like a hose containing several large balls of food. After she had been taking for a time a diet from which every trace of milk was excluded, the stomach was relaxed and dilated to such an extent as to fill half the abdomen. This patient, by treatment with infinitesimal, gradually increasing doses of milk was given tolerance for milk to such an extent that she could stand the quantities that she encountered in her diet. She regained splendid health in a short time.

In the previous paragraphs have been described cases of extreme sensitiveness to foods. There exist less highly sensitive cases; for example persons who are sensitive to egg but who can tolerate the eating of one egg. They may be made ill by the eating of two eggs. Certain others can tolerate the amount of milk used in cooked foods and the amount used in coffee but may be made ill by the drinking of as much as one glass of milk. The source of illness in the less sensitive types is often more difficult to discover than in the extreme cases, but, on the whole, these persons are easier to treat successfully.

Other Kinds of Allergy

Food allergy is only one variety of allergy. Other varieties include those caused by air-carried substances which make persons ill when inhaled or by contact with the skin. Among these substances are pollen, hair or dander of animals, emanations from fowls or feathers, perfumes, vapors, smoke of various types, and dust-containing agents. Persons can become sensitive to the effect of light, heat or cold, and, strange to say, to the effect of mental or physical exertion. A discussion of the types of allergy

of this sort hardly comes within the scope of this paper. They are interesting and frequently afflict patients who have food allergy. They are mentioned only on this account.

Little is known concerning the cause of food allergy except that allergy is a hereditary condition that is transmitted according to what are known as the mendelian laws. It is known simply that patients of allergic heredity can become sensitive to one or more agents, such as pollen, foods, dander or what not. Why they should become sensitive to one substance and not to another is a mystery. If allergy occurs in several members of a family, each one is usually sensitive to a different agent, one possibly to a food, one to a pollen, one to a dander and another possibly to the effect of heat or cold or light. Patients who are subject to allergy frequently react mentally in a peculiar way to things in which they are intensely interested. Their reaction is one of exaggerated response to matters that concern them deeply. This may work to the benefit of the afflicted person if it is not so markedly exaggerated as to make him sick or get him in trouble. Efforts in handling patients of this sort should be directed toward reminding the patient of his tendency to overrespond and toward urging him to make the exaggerated response useful instead of harmful.

Correct Diagnosis Difficult

The treatment of allergy depends primarily on a correct diagnosis. This is frequently beset with difficulties. I know of no illness to which the human race is heir that taxes the ingenuity, knowledge, experience and patience of a physician to the same degree as the studying out of an obscure case of allergy.

A person is fortunate if he is sensitive to a food that he rarely encounters. He is then of course rarely made ill by it and, furthermore, he usually notices that the substance makes him ill and instinctively avoids it. For example, if a person is sensitive to strawberries, he learns that strawberries make him ill and so avoids them. The same is true if he is sensitive to such unusual foods as cantaloup, mushrooms, fish, buckwheat and oatmeal. But when he is sensitive to foods he encounters once, twice, or three times daily, he is usually in a chronic state of ill health and is rarely able himself to trace a relationship between the offending food and the illness.

If a person is highly sensitive to milk, he is not only made ill by milk when he drinks it, but by the milk contained in butter, cheese and cooked foods such as bread and potatoes. He is occasionally made ill by the milk contained in cow meat, and if he is highly sensitive, he can actually be made ill by the trace of milk encountered through contact with other persons who have recently drunk milk. The difficulties are still greater if the patient is sensitive to two foods that are commonly met with, such as milk and eggs. In this case, while avoiding one food to which he reacts, he may be in constant contact with the other. He might spend a large portion of his life in a futile endeavor to discover the offending agent.

Persons who are sensitive to buckwheat can be made ill by the trace of buckwheat contained in buckwheat honey. Rice-sensitive nurselings can be made ill by the rice eaten by the mother. Egg-sensitive persons can be made ill by the trace of egg contained in hen meat. Finally food carriers are as definite a source of illness to highly sensitive patients as typhoid carriers are in relationship to the epidemiology of typhoid fever.

Treatment Recommended

What is there to say concerning treatment? The most natural and simple cure is avoidance of the cause if the cause can be found and if it can be avoided. This should give rise, if accomplished, to rapid cure; in fact, cure within from twenty-four hours or less to several days or a week. In the case of sensitiveness to commonly eaten foods, such as milk, eggs, wheat or sugar, however, avoidance is almost impossible of accomplishment.

Nature is remarkably adaptable. If a patient is gradually exposed to infinitesimal, gradually increasing amounts of the noxious agent, he frequently becomes tolerant to it, so that he can stand almost unlimited amounts without ill effect. In fact, a milk-sensitive person can be made to get fat on milk. This is readily understood when one remembers that if a person had to walk on the back of the foot instead of the sole, the skin of the back of the foot would gradually become calloused. An analogous sort of toughening process is employed in the treatment of patients who happen to be sensitive to foods commonly met with. This can frequently be accomplished through treatment by mouth with infinitely small and gradually increasing doses of the poison agent. Treatment by mouth is not always successful and in such cases the subcutaneous injection of infinitesimal and gradually ascending doses of the noxious agent is made. The latter method of treatment requires experience and is not without danger.

If the cause of the trouble cannot be found or, if found, cannot be removed, symptomatic remedies such as epinephrine, ephedrine, atropine, acetylsalicylate and the iodides are resorted to by the physician. This method is not to be highly recommended except for temporary use. It does not remove the cause of the illness nor does it give tolerance for the noxious agent, nor can it be discontinued as a general rule without recurrence of symptoms unless the patient accidentally comes to avoid the agent responsible for the illness.

Parents' Mistakes

"You remember the Smiths lost their little girl just a year ago."

By C. A. Aldrich

WHEN it was suggested that I write on this subject, my first reaction was, "There is too much dynamite in this for me. Parents have had enough of disparagement. What they need is a little cheering up." But as I thought it over and recalled my many mistakes both as parent and as physician, I came to look on it as a duty to give my reactions to some frequent mistakes. Therefore in reading this you will, I hope, realize that my remarks are meant rather in a constructive than in a critical vein, and that the difficulties to be overcome in meeting the problems of children today are fully comprehended. All of us—parents, physicians, teachers and psychologists—are passing through a trying experimental stage in which it little behooves any of us lightly to charge the other with mistakes. These suggestions to parents, then, are made thoughtfully to encourage them in their task.

Perhaps the physician, because he sees families in times of stress, is most liable to see mistakes. The fact that he is commonly called on to deal with physical needs only does not make him less observant of psychologic errors, and the association of poor mental hygiene with ill health is too common to escape even the most casual observer. Therefore I cannot limit myself to purely physical considerations although I shall try to emphasize the points bearing on health.

The young mother of a sick child is given all the harrowing details of the illnesses of babies.

I shall not waste time telling such simple facts as that a child should never be threatened with a visit from the doctor, which seldom happens any more, or that one should never say that the doctor won't hurt, which almost invariably happens still, or that evil-tasting medicines should not be proclaimed delicious. These things modern parents know. Neither shall I ride my hobby about children's appetites, though I think its path is strewn with flagrant mistakes. I would rather point out some attitudes and habits of parents that seem to be at the root of difficulties.

Parents talk too much about illness. They do this not only at tea parties and sewing circles but also before their children and to parents whose children are already ill.

That unpleasant or alarming talk about illness should not go on before children is evident. Sickness in itself is so unpleasant to a child that it need not be emphasized by talk. Do not threaten a child with illness because of some minor indiscretion unless you expect him to be fearful of it. There is no reason why illness should strike fear into the heart of a child unless he has learned that fear from others.

Aimless talk about illness has little justification. In the first place, the subject is unpleasant except to the person retailing his past woes and tribulations. Moreover, excessive indulgence in this form of gossip seems a sign of an unhealthy mental state. There are too many

other interesting, constructive topics in these days of rapid evolution. Why waste time with the enumeration of sicknesses?

From the physician's point of view there is another objection to this habit. The more ears a medical truth passes through, the less it becomes truth. If at the beginning it happened to be only theory, after several passages it becomes fancy. Medical facts and theories then, as long as promiscuous talk goes on, must be at the mercy of the fickle tongue of gossip. This is harmful for people and for medicine. Many a child is mistreated medically on the basis of curbstone advice, unreliable as to its source and garbled in its travel.

When a friend's child is taken with an illness, do not rush to the phone and recite all the terrible things the particular disease has been known to do. Don't tell the young mother all the harrowing details of the illnesses of babies. That such talk may forearm a person is its only justification, but it is too often applied when there is no need. Usually it is not kind or sensible and does more harm than good.

Can't Buy Health for Children

Physical and mental health cannot be bought. It is necessary that parents shoulder the responsibility of their children's welfare because they are the only ones in constant and permanent contact with the children. All others see them temporarily, cannot be in touch with their whole background, and therefore must lack in perspective. Parents should not relegate too much of the detail of children's care to hired help, professional or otherwise.

As an instance of the mistaken point of view, I recall the remark of one parent who said that he hired the best nurses and doctors that money would buy and then forgot about it. So carefree an attitude as this is unusual, but is it not true that we are all somewhat influenced by this feeling? We know that no matter how haphazard may be the routine care of our children, in the eventual jam that comes, the experienced nurse, physician or psychologist will be available on a cash basis. And we trust that they will be able to wave the magic wand and effect a cure. Unfortunately this is often impossible and even in the apparently cured cases scars which resist further treatment may result.

The sure road to health must be thought out in advance by the sweat of our brains. Its pitfalls and hard grades should be avoided and eased by parents' forethought. Such a method is better than use of the occasional rescuing rope of the physician or the supporting arm of the psychologist applied in time of stress.

One of the commonest mistakes seen is a misunderstanding by parents of why they call a physician. This lack of understanding results in the use of many fads in the treatment of disease.

The primary object of the doctor is not to effect a spectacular cure. Ambroïse Paré, one of the founders of modern medicine, centuries ago made famous the phrase, "I dress them; God heals them." This thought is almost forgotten now in our enthusiasm over recent scientific advances. The doctor or proponent of any medical cult or fad who takes to himself personal credit for cures is either insensible to or ignores the final source of all healing—nature. He who tries to prevent disease and its harmful results by carefully applying his knowledge to nature's laws is truly constructive.

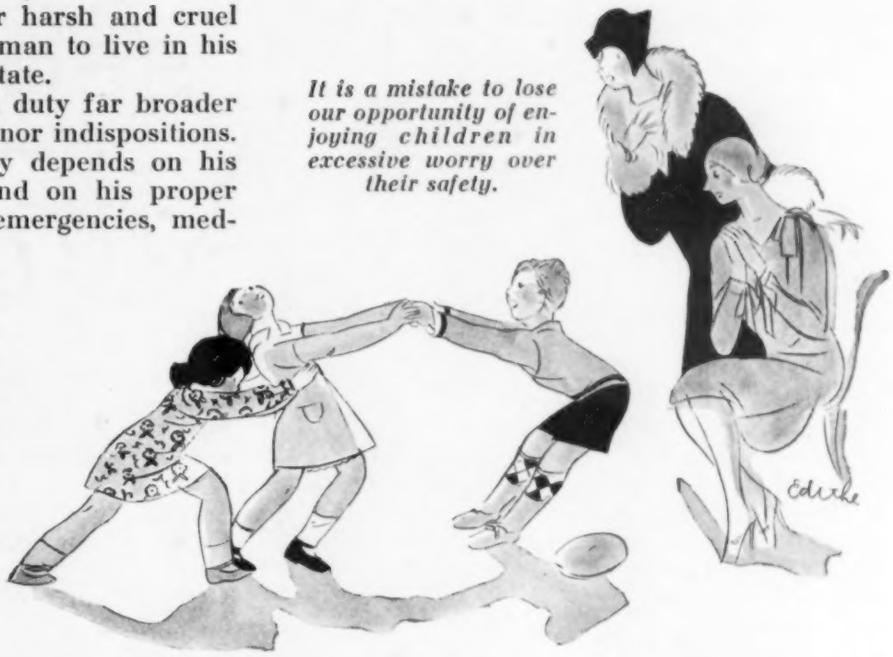
The Modern Physician's Duty

The modern physician's duty lies in three fields: (1) in the prevention of disease, including measures of public hygiene, advice as to proper physical and mental living, and the administration of preventive vaccines and antitoxins; (2) in advising methods for relieving the distress of the sick and so supervising their care that the healing powers of nature may be unhampered, and (3) in properly diagnosing and treating the occasional emergency. By emergency in this sense, I mean the instance in which it is imperative for the sake of life, function or limb that some decisive action be taken without delay. In these measures, be they regulations of public sanitation, surgical operations, or the administration of medicines or antitoxins, the physician does not supplant

Probably it would be much better for children if young mothers were barred from membership on committees.

nature. He supplements her harsh and cruel laws, making it possible for man to live in his chosen, unnatural, civilized state.

The physician, then, has a duty far broader than the cure of colds and minor indispositions. His greatest usefulness really depends on his ability to prevent disease and on his proper diagnosis and treatment of emergencies, medical and surgical.



It is a mistake to lose our opportunity of enjoying children in excessive worry over their safety.

Many persons do not enjoy their children enough. They are oversolicitous, and this tends to develop mental and physical weaklings. At this time more than in the past, one should be able to rear children with the utmost confidence as to their safety. I wish that adequate mortality statistics were available for quotation. They would show an astonishingly low death rate as compared with that of the children of two decades ago.

A few years ago the health officer of a large suburb of Chicago told me that in his town in one year there were only ten deaths in children under 10 years old, and that these included still-births and accidental deaths. To appreciate what this means one must remember that within our century the mortality rate for children under 1 year has been 25 per cent. There has never been a time in which it has been as safe to rear children as it is now. We don't capitalize this security, else there would be less talk and worry about illness. True, our children do contract serious illnesses, but something we have been able to give them, either in food, air, clothing, or in housing conditions has enabled them successfully to combat these diseases.

Oversolicitude about Physical Defects

This last thought has reminded me of a peculiar sort of attitude met with in some parents. These do not seem to feel happy about their job unless they are fixing some defect in their children. It is like a man with an old style Ford car. He is always happily driving off after a repair job. Such people often bring their children for examination. If nothing in the routine examination is found wrong they are likely to say, "But you didn't take a blood count. She may be anemic," or it may be, "Don't you think we ought to x-ray her chest?"

In these queries I seem to detect a slight tinge of disappointment that there is nothing to fix. This is but another form of oversolicitude. Take your blessings at their face value, cash in on them, and enjoy children while they are yet young. In this I am not advocating a self-deluded attitude toward physical defects. Routine medical examination is of established value which need not here be discussed. My advice is to meet squarely, without hunting too hard for new ones, the problems that exist.

Many parents give only the rag-tag and bob-tail part of their time to children. Modern life has so filled the day for most of us that we are too exhausted in the time that we allot or surrender to our children, to meet their needs successfully, much less to enjoy being with them. We cannot think quickly and intelligently when we are tired out. For that reason it seems to me that parents of young children should husband their strength for their really important problems.

Many parents fail to realize the personal satisfaction to be derived from meeting the problems of children intelligently. Too many encounter them as vexations interfering with daily routine.

Parents' Problems Challenge Best Efforts

The business man at his desk is constantly meeting problems interrupting his plans, but he expects to solve them as a matter of course. Parents, however, faced with the unexpected illnesses and problems of children, are likely to take these vicissitudes as annoyances which they ought not to be expected to bear. The "why does this happen to me?" attitude is too common.

We lose sight of the fact that the problems incident to the caring for children are at least as satisfying cerebral exercise as are those arising from the deviations of the stock market or from the intricacies of a tricky hand of bridge. Surely none will say that the job of managing a household with children lacks in number of such opportunities.

SIMPLE LESSONS *in* *Human Anatomy*

KNOWLEDGE of the structure of the human body is indispensable in surgery and medicine. It is interesting in all human activities, for the range of each of them is fixed by the structural limitations of the bodies in which we live. It is full of fascinating significance and beauty to those who realize that each part owes its structure to the life that is in it, that this life is but the continuation of the life of our ancestors human and animal through long ages, that each part has been made over by nature for successive tenants and adapted to their uses.

Thus the structure of our bodies is eloquent of our past, of what our ancestors were and of what they did. It reveals the marvelous craftsmanship of nature, which has taken structures of fish and amphibian, reptile and mammal, modified them, and fashioned from them the human body, "the beauty of the world, the paragon of animals."

Part—a small part only—of the evidence that the human body offers of the ways of nature has been heeded and studied and interpreted by earnest disciples from Aristotle to Mall. There is still no part that does not offer beauty and significance not yet appreciated. Thousands are studying the structure of human and animal bodies. Six hundred journals record their findings. It is apposite to say of this study what Tennyson said of the flower plucked from the wall's crannies:

". . . if I could understand
What you are, root and all, and all in all
I should know what God and man is."

A living human body is not fixed and static. It is not so much something that exists as something that is happening and has been happening for ages. It changes while we are looking at it. Not only is it reacting incessantly to its environment, but at any moment each body is at one stage of the seventy-year progress from germ cell to grave: it is coming out of one stage and is passing into the next. As stage follows stage, structures develop and are changed. Only in the first stage, the germ cell, are all structures inherent, and in it none are apparent. They become apparent only as the body grows and lives and dies.

At what point in the cycle shall we study its structure? The stage of greatest power and efficiency, that of the adult between 27 and 60, is also the stage at which changes are slowest and fewest. It is also the stage with which we are most familiar. Indeed, the early stages were not well known until Wilhelm His, a patient and gentle Swiss anatomist, studied them. His discoveries have thrown new light on the structure of the adult. He died in 1904 and many American anatomists have been his students and followed the methods that he taught them in Leipzig, where he spent his later years.

Franklin P. Mall (1862-1919) was a teacher of anatomy in Baltimore.

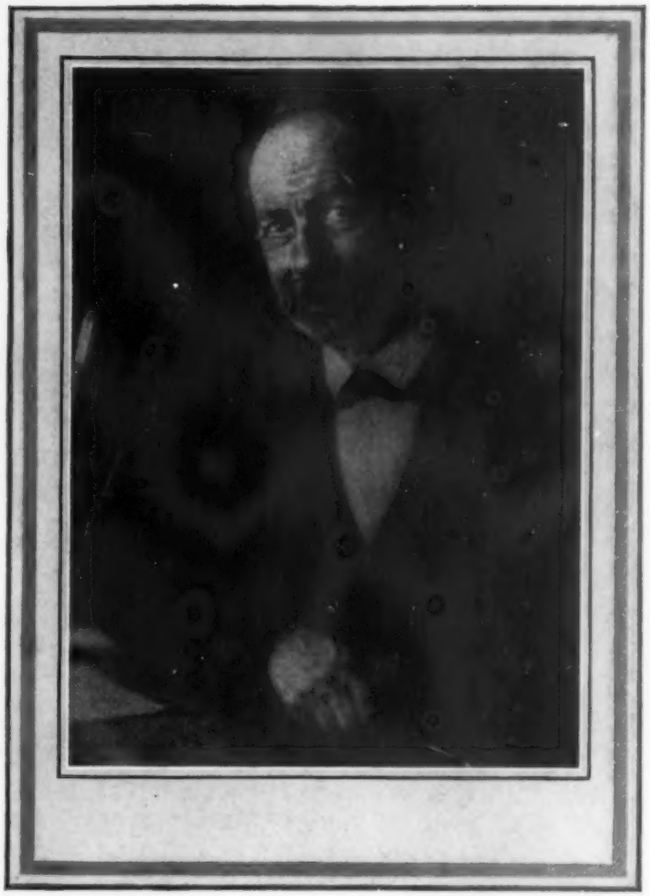
The outlines of structure that follow refer mainly therefore to the adult, with occasional references to development stages.

I. The Skin

Because of its position on the outer surface, the skin is necessarily the part that is concerned with the relations of the body to its environment. This imposes on it varied and interesting tasks. It must be sensitive and aware of environmental activity; it must defend the body against mechanical violence, against loss of water or ingress of water and other fluids; it must keep out bacteria and poisons; it must regulate the temperature, which in health is constant, arranging for retention of

By B.C.H. Harvey

With this article on the skin, Dr. Harvey, an anatomist, begins a series of twelve lessons on the anatomy of the human body.



Wilhelm His (1831-1904), Swiss anatomist, taught at Leipzig.

heat usually and for loss of heat when necessary; it must make weapons of offense; it is peculiarly exposed to wear and tear and must renew the surface tissue when that is scraped or worn away.

The skin does all these things; it does them all at the same time, and each to just the extent necessary to meet the special conditions of the moment. It does much more—it provides nourishment for the infant; it keeps the eye covered with salt water (we could not see through a dry membrane); it makes a tube which allows airwaves to get to the drum membrane of the ear and keeps insects out; it provides a firm-gripping, nonslipping surface for hands and feet and a hundred other special services in different parts.

Skin Weighs 6 Pounds

Its total weight is about 6 pounds; its area is about 16 square feet. The relation of surface area to body weight is important in relation to air resistance, to facility of movement and to radiation of heat. The infant, who has much more surface in proportion to his weight, becomes cold more readily than the adult. A fair idea of the skin's structure may be obtained from the accompanying figure (fig. 1). This shows that the skin is made up of two parts, the superficial epidermis and the dermis.

The epidermis is the important part. The dermis serves it by giving it nourishment, support and mechanical strength. It is the epidermis that performs the services that have been outlined. No other tissue has such diverse capacities. In its early stages, long before birth, it covers the surface of the embryo body and is called ectoderm (fig. 2). This is the master tissue of animal bodies. It is interesting to note that it is entirely without blood vessels or lymph vessels. Its nourishment is always supplied by seeping of fluids from the part beneath it.

The epidermis is made up of five layers of which the outer two are dead. The horny layer on the surface constitutes the scarf skin, which is constantly being shed in the human animal (dandruff). In some reptiles it comes off all in one piece periodically in the molting season. Beneath it is the fluid, clear layer. The third is the granular layer; the figure shows that it is composed of many little cells; the cell granules are the initial stages of the horny substance which gives toughness to the surface layer. This layer and those beneath it are alive.

A Protective Fluid

The fourth layer, called the mucous layer, constitutes an especially active part of the epidermis. Cells of the mucous layer are separated from one another by spaces full of fluid and connected with one another by many strands which pass across the fluid intervals (fig. 4). It constitutes a continuous, tough, spongy membrane extending over the entire surface of the body and providing a watery cushion that protects the all-important deepest layer. In case of repeated irritation or burns of the epidermis, this fluid is greatly increased in the area affected, forming blisters; these protest the deepest layer, from which all others are formed.

The deepest layer is called the germinative, or malpighian, layer. It is constantly undergoing cell division and producing cells that pass

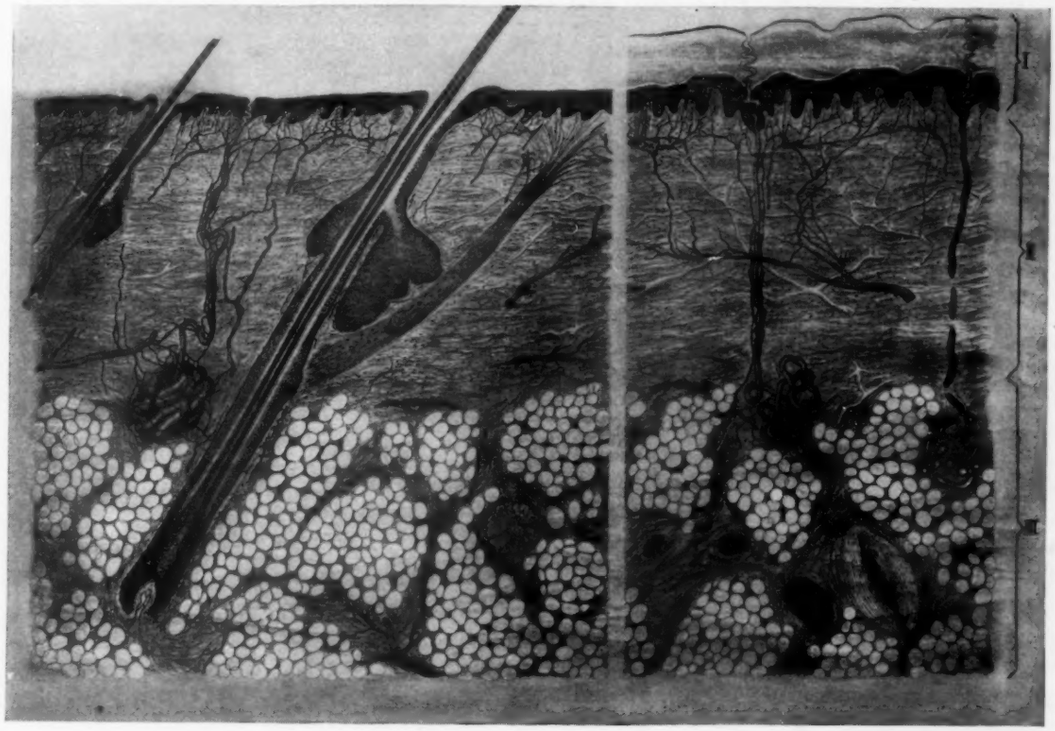


Fig. 1.— HUMAN SKIN WITH HAIRS (LEFT) AND WITHOUT HAIRS (RIGHT) I. Epidermis II. Dermis III. Loose fatty tissue under the dermis.

Fig. 2. — Human embryo, one-tenth inch in length. The ectodermal trough has closed into a tube in the middle of the body. At the brain end and also at the tail end, it is still open.

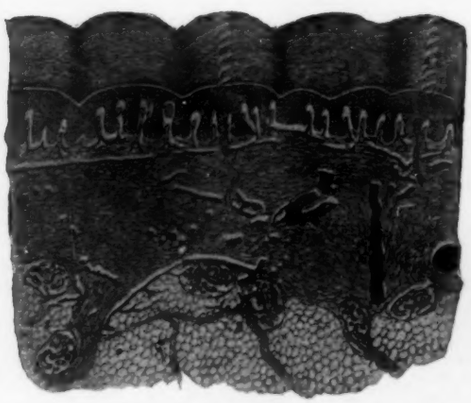


Fig. 3.—The papillae of the dermis. Between them are the openings of the sweat glands.

Fig. 4.—Cells of the mucous layer. The spaces between them are filled with fluid.

Fig. 5.—Cross section of a finger nail.

toward the surface; becoming changed in physical and chemical characters, these cells replace those that are lost at the surface. This layer obviously is the one that possesses all the manifold capacities of the epidermis. In injuries, if only a part of the malpighian layer is left, that part is capable of reforming all the rest. Injuries stimulate it to rapid cell division in an amount just sufficient to repair the damage. This is the layer that is in contact with the dermis and through it must pass all the fluids that nourish the external layers. It is closely adherent to the dermis.

The surface of the dermis is covered with little finger-like projections or papillae (fig. 3) and the germinative layer is molded over them, completely covering each one as the fingers of a glove cover the fingers of the hand in it. Since there are about 65,000 per square inch, the epidermis is firmly attached to the dermis. Surface abrasions do not cause bleeding unless they involve the papillae. Ordinary abrasions are arrested by these tough projections; little remnants of the germinative layer are left at the bottom of the intervals between and act as germinative islands by whose activity the epidermis is speedily repaired.

It will readily be seen how the general structure of the epidermis enables it to perform some of the tasks that fall to it. The horny and clear layers are impervious to water and hence prevent the loss of this essential fluid or the ingress of excessive amounts. Bacteria lodge on the horny surface layer, which is constantly being shed; they cannot pass through the epidermis and so cannot pass into the body except as it is destroyed. The mucous layer provides a watery cushion, which is a valuable defense against minor mechanical violence. The epidermis performs the other special functions mentioned by modification of its structure in different places. These modifications appear first in various early stages of development.

Prenatal Development

The part of the ectoderm that lies at the head end of the body and along the middle line becomes especially modified for sensation during the first weeks of prenatal development. It dips in from the surface to form a trough (fig. 2). The walls of this thicken and sink deeper into the body until finally the trough closes along its outer surface and becomes a tube lying just inside the body surface; this tube becomes the brain and spinal cord. From it all the nerves grow out.

The epidermis regulates the temperature of the body by forming sweat glands in many places. These grow from the surface into the dermis in the fourth month. In the adult when the body is too hot they take water from the blood stream and pour it out to be evaporated on the surface. One of the many advantages accruing from the presence of so much water in the human body (85 per cent of its weight) is that, since the evaporation of water uses up more heat than the evaporation of any other fluid, the sweat glands can thus provide a means for the prompt and efficient cooling of the body when it is too hot. The epidermis is able to prevent loss of body heat on other occasions because in the mammals, all of which have a constant and warm body temperature, it has the ability to produce fur. The hairs, of which fur is made, are purely epidermal structures, which grow from the bottom of tubelike processes of the epidermis that extend through the dermis into the underlying tissue during the third month of development. Hair is itself a nonconductor of heat, and the hairy covering of the body by preserving undisturbed a layer of air over its surface provides one of the best conservers of heat known.

What Determines Color of Hair

The part of the ectoderm that lies at the epidermis in general, is produced by pigment granules contained within the cells. Color is a racial character due to inheritance and not to environmental heat or light as is commonly supposed, though the latter may modify it slightly and temporarily, making tan or freckles in the summer. Black, brown and white bears have different colors simply because they are of different varieties and the same is true of black, brown and white men. The color of skin, hair and eyes is dark in most races of men; it is only in the Caucasian race that blue eyes and light hair appear. Straight hair is cylindrical; its cross section is a circle. But curly or kinky hair is flattened; its cross section is an ellipse.

The epidermis provides weapons of offense in the finger nails and toe nails and, in some animals, in the hair. The latter constitutes the quills of the porcupine and the horns of the rhinoceros. The finger nails constitute a local modification of the clear layer of the epidermis. In the area at the root of the nail the granular layer becomes transformed, not into the horny layer as elsewhere, but into the dead cells that constitute the nails. As the nail grows these are shoved from the root over the nail bed to the tip of the finger, sliding over the substance of the clear layer beyond the root, which helps to hold the nail in place. The curvature of the nail is another important factor in holding it on, because under the nail the papillae are especially large and are arranged in longitudinal rows (fig. 5). There are 100 rows under the thumb nail. These make ridges and, since there are also longitudinal ridges on the inner surface of the nail, it is able to exert a considerable force without being pulled away from the nail bed.

The nails on the fingers grow about one two-hundred-and-fiftieth of an inch per day; those on the toes grow only about one-third as fast. Occasionally transverse grooves appear on the finger nails. These are caused by thinning of the nail, evidently corresponding to a period of sluggish growth. Growth of the finger nails is sluggish for a while when the arm or forearm is injured. Such grooves are frequently seen in fractures of the bone, and there is a popular saying that the fractures will have united when the grooves grow to the tip of the finger nails. The saying has in it a measure of truth, which illustrates the association between the activity of the epidermis and the health of the part it covers.

Other Weapons of Offense

Other weapons of offense are the teeth. The epidermis dips into the nose and mouth and makes the lining of the part of the mouth in which the teeth grow. The hard enamel that covers the teeth and gives them their efficiency as weapons is produced by the epidermal covering of baby teeth before they grow through the gums.

In the region of the eye the epidermis produces the tear glands possessed by all land animals. It is obvious that the animals that first came up out of the water would have become speedily blinded by the drying of the surface of the eyeball unless the epidermis had been able to provide a constant renewal of moisture.

The milk glands provide nourishment for the young of mammals and are an ingrowth of the epidermis. They are essentially modifications of the sweat glands. In the external ear another modification of these glands enables them to secrete a yellowish, oily fluid, which on drying provides the ear wax; insects invading this tube are halted by its sticky walls.

The concentric ridges, which appear on the balls of the fingers and by which the finger prints used for identification are made, appear also on the palm of the hand, especially on the side toward the little finger and also on the palmar side of the knuckle joints. These lines are produced by rows of papillae which lift up the overlying epidermis into ridges. They serve to give a surer grip to the hand and surer stance to the bare feet. It is of interest to note that the spider monkey of South America, which hangs onto branches by the tip of its tail, has developed similar ridges in the hairless skin which covers that part.

One part of the epidermis becomes especially sensitive to vibration and dips into the head to become the internal ear. It is affected by air vibrations, and also by water vibrations and bone vibrations; we can hear under water or by holding a tuning fork against the teeth or head bones. Another part becomes especially sensitive to smells and dips in to form one portion of the lining of the nose.

These special structures formed by the epidermis, or ectoderm, appear at different times in the early stages of development. The first is the modification of this tissue to form the brain. Other modifications follow in due course, each at its own time. They appear during development in a definite sequence, which is the same in man and in all other animals that have similar structures.

An Orderly Sequence in Development

Study of the series of animals from lowest to highest, both those now living and those preserved in the rocks, shows that this sequence in development is the same as the sequence in evolution. Modifications follow the same order in the few years of human development that they followed in the long course of evolution of animals.

The epidermis of the head of the human embryo becomes thickened into a brain in the earliest stages of development; the skin of the most primitive animals, being more exposed at the head end, became more sensitive there and formed a kind of brain in the earliest stages of evolution.

The same orderly sequence appears in the life history of all other tissues as in the life history of the epidermis, and this illustrates the most fundamental principle in the structure of all animal bodies: the development of the individual tends to repeat the development of the race.

Are High Heels Injurious?

By S. Elizabeth Van Duyne

Pacific and Atlantic

A contrast in heels and in posture. One school girl is wearing a shoe with a heel 4¾ inches high. The other girl in a sensible shoe has good standing posture.

YOUNG women are loath to accept evidence that shoes are the cause of most of their foot troubles. Corns, calluses, warts and bunions are undoubtedly nature's protest against shoe insult.

Most girls and women, in spite of ridicule and warnings, look on high heels and even spike heels as things of beauty ardently to be desired. A surgeon of note is said to have fastened long corks to his shoes to demonstrate how impossible it is to walk with spike heels and use the muscles properly. Probably when silk-clad calves begin to dwindle dame fashion will call a halt, but meanwhile feet can be permanently damaged that might be saved for a youthful old age.

Dr. Joel E. Goldthwait in "Body Mechanics and Health" says: "High heels have always received well-merited censure." He warns of interference in circulation and nutrition in the muscles of legs and feet, of bad effects on spine and pelvis, and of flattening of the anterior arches of the feet.

It seems to be difficult for women to find good-looking, safe dress shoes. Because of this fact chiropodists and others who treat feet must be making fortunes. A well known weekly recently gave space to the following: "Do you want a new business profession of your own with all the trade you can attend to? Then become a foot correctionist and in a few weeks earn a big income in service fees. Easy terms for home training."

In a recent senior class at Goucher College, the final medical interview brought out some points on feet and shoes. Following is a brief summary:

Total number in class	213
Total number examined	212
Number who had shown feet weak or deformed on entrance to college	83, or 39 per cent
Number with normal feet at senior interview	38, or 18 per cent
Number with abnormal conditions in feet at senior interview	174, or 82 per cent
Number with low anterior arches	129, or 60 per cent
Number with calluses under anterior arches or base of great toe	64, or 30 per cent
Number with callus or thickening back of Achilles tendons	127, or 59 per cent
Number with record of warts on soles of feet	13, or 6 per cent
Number with corns	39, or 18 per cent

Number with tendency to bunions or ingrowing nails	11, or 5 per cent
Number who showed thickening back of Achilles tendons and low anterior arches	91, or 43 per cent
Number who showed thickening back of Achilles tendons and low anterior arches with calluses	49, or 23 per cent

An astonishing fact in connection with these findings was that few students would admit discomfort or pain in their feet. More than half of them wore spike-heeled shoes for dress occasions. Nearly all of them, for hiking and athletics, had sports shoes with a straight inner line, low broad heels, room for the toes and flexible shanks. A few wore shoes too short for their feet. A number had been wearing shoes with built-in arch supports under the impression that such shoes were strengthening their arches.

Girls with Normal Feet Wear Sensible Heels

Further facts brought out in this study were that of the thirty-eight students with practically normal feet thirty-seven, or 97 per cent, either did not wear high heels at all or else wore them less than one third of the time. One wore high heels more than half of the time.

Thirty-seven, or 17 per cent, of the students never wore high heels. Fifty-eight per cent wore them for dress purposes only. Ten of them, or 4.7 per cent, wore high heels most of the time.

According to the records forty-six girls, or 21 per cent of them, suffered with backache at intervals during their college career. Of this number 14 per cent did not wear high heels, although several had tried them and found them too uncomfortable. Forty-five per cent of the girls with backache wore high heels for dress only and 39 per cent wore them more than half of the time.

Twenty-eight girls had a history of injuries of ankles and backs while in college. Of these 60 per cent wore high heels for dress purposes only and 36 per cent wore high heels more than half of the time.

High Heels Probably Bring Fatigue

Seven girls, or 3 per cent, were troubled with fatigue, irritability or nervousness. All these girls wore high heels more than half of the time.

To prove any definite connection between high heels and menstrual difficulty would require comparative studies in some thousands of cases. Records of the thousand students enrolled in Goucher College in the year 1923-1924 show that the time lost from work because of dysmenorrhea was as follows:

No menstrual handicap	86.6 per cent
Slight menstrual handicap	13.1 per cent
Serious menstrual handicap	.3 per cent

A similar study of the 212 graduates of the class of 1928 is not quite so favorable:

No menstrual handicap	55 per cent
Slight menstrual handicap	43 per cent
Serious menstrual handicap	2 per cent

The high spike heel had not become so popular in the first two years of this class in college. Comparative studies were made to determine whether dysmenorrhea was increasing or decreasing in their records.

High Heels and Periodic Discomfort

Dysmenorrhea increased in the senior year in the case of thirty-nine girls, or 18 per cent of the total number. Of these, 79 per cent wore high heels less than one third of the time or not at all. Seven girls, or 18 per cent, wore high heels more than half of the time.

In the case of sixty-one girls, or 28 per cent, dysmenorrhea decreased in the senior year. Ninety per cent of these girls either did not wear high heels at all or else wore them less than one third of the time. Ten per cent wore them more than half of the time.

Twenty-nine, or 13 per cent, of the group of students reported four or more absences during the four years of college as a result of dysmenorrhea. Twenty per cent of these wore high heels more than half of the time and 79 per cent did not wear them or wore them less than one third of the time.

A control group of twenty-nine girls selected at random reported no absences from dysmenorrhea in the four years. Of these one wore high heels more than half of the time and the remaining twenty-eight did not wear high heels or wore them less than one third of the time.

General Conclusions

The general conclusions that may be drawn from the foregoing figures are as follows:

1. Many thickenings and calluses not previously observed have been noted at the back of the heel since spike heels have been worn. In a few cases it was found that the heel tendon had contracted and the wearing of low heels caused discomfort or pain.

2. The large number of lowered anterior arches would seem to indicate that even the wearing of spike heels for dress occasions may be followed by damage to these arches.

3. Backache is likely to be increased by the wearing of high heels.

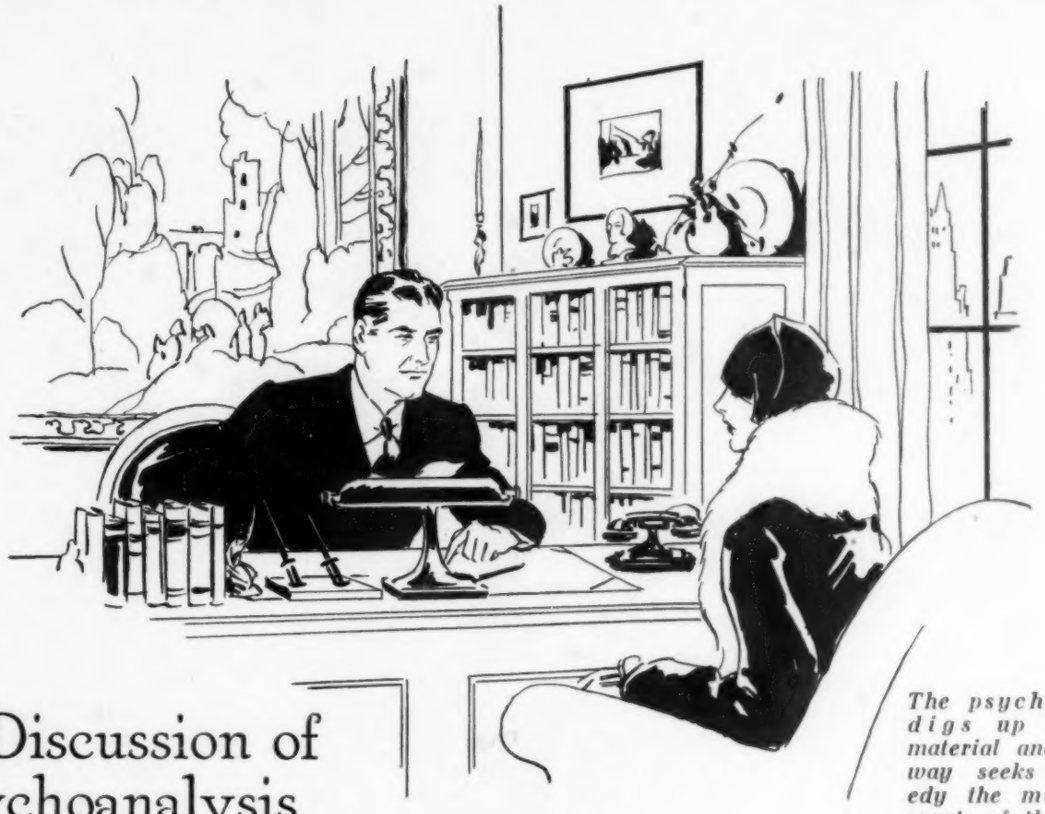
4. The danger of injuries from falls is unquestionably greater in high heels.

5. Fatigue, irritability and nervous conditions appeared to be associated with the wearing of high heels.

6. Dysmenorrhea seemed to be increased in those who wore high heels more than half the time and probably in many who wore high heels only for dress occasions.

UNKINKING *the* MIND

A Discussion of Psychoanalysis



The psychoanalyst digs up repressed material and in this way seeks to remedy the maladjustments of the patient.

IN THE ancient phrase, "As a man thinketh in his heart so is he," one can see that it has long been known that something other than conscious mental processes guides man's actions. Through the ages man has known little about his inner motivations. However, more or less in direct proportion to his ignorance, has he been prolific in attempts at rationalizing his behavior.

In the field of practical medicine a group of ideas or conceptions is being increasingly used in all quarters of the globe. These conceptions have come to be termed "psychoanalysis" and they are found to be valuable medically in certain maladjustments in the human energy system, or bodily machine.

About 1880, the present crystallization of psychoanalytic conceptions began, when Dr. Joseph Breuer, a well known Vienna physician, began to discuss with Dr. Sigmund Freud—a young medical graduate, then only 24 years old, who had already done some original work on the nervous system of lower animals—some interesting results obtained in a severe case of hysteria by the process of "talking things over," or "chimney sweeping" as the patient herself called it. Freud tells how, in Paris in 1885, he tried to interest his teacher Charcot in this case and in Breuer's and his notions about this "chimney sweeping" process. The ideas of hypnosis and suggestion were then current and though they still are of great significance in our understanding of unconscious processes, Freud was not successful in gaining Charcot's cooperation.

By Smith Ely Jelliffe

It was not until 1893 that Freud definitely put down on paper the first outline of ideas that have grown into such large proportions in the thirty-five years that have passed. Since then his writings have been many and occupy eleven large volumes in their definitive German edition.

In the Encyclopedia Britannica, Freud himself has given an account of the whole movement, and there tells us that by "psychoanalysis" one can legitimately speak of two things: (1) a certain method

of treating certain types of so-called nervous disorders, and (2) a method of research for the understanding of unconscious processes and of their relative influence on human behavior.

The first is a specific applied situation; the second a general one indicating the applicability of psychoanalytic concepts to a great number of human interests, such as art, literature, religion, law and in fact anything in which man and his fellows meet.

What are these psychoanalytic principles? Categorically, may I name the assumptions. In the first place, without saying anything about it, Freud adopts a general platform fairly widely adopted in positive science—that of the principle of the conservation of energy. Those mechanisms in man that deal with him as capturing, transforming and delivering energy follow the principle of the conservation of energy. In short, although accident is a recognized fact, law or meaning may be found in all of man's activities. Everything man does internally as well as externally follows some law and may be understood only when reduced to its meaning.

The "problem child" can often be understood and aided through psychoanalysis.

Another of the assumptions in psychoanalysis is the enormous importance of the instinctive life of the human being. For practical purposes psychoanalysts speak of the instinct of self-preservation, or ego instinct, and the instinct of race propagation, or sex instinct. It is a deliberate misstatement to say that Freud believes, or teaches, or has ever written that the sex instinct alone guides man's activities. He has said specifically that for this or that problem he has chosen deliberately to study the unconscious ramifications of the sex instinct in order to see what light such a study will throw on the particular distribution of the energy involved in the phenomena in question. Thus many a conversion symptom in a hysteria patient, such as may show itself in the nose or skin or stomach, may be demonstrated to be but a displacement of energy which more biologically would show itself as a socially or individually permitted activity in the genital sphere, if it were not for faulty sublimation of the repressed instinctive drive. The ego (self-preservation) instinct can also be studied to advantage by the same psychoanalytic method.

This brings us to the much discussed notion of repression, in the psychoanalytic conceptions. Many people confuse the words "repression" and "suppression." It should be emphasized that suppression refers chiefly to conscious activities. The Volstead act is an outstanding example of attempted suppression. Repression refers to unconscious processes of which the individual is not aware. One might say these are racially learned suppressions. They have become automatic and behave, at higher levels, as reflexes do at lower levels.

Goethe once wrote that "anything that liberates the spirit without a corresponding growth in self-mastery is pernicious." In psychoanalytic terminology this means that repressions stand at the crossroads and the energy of our instinctive drive either is liberated constructively as a sublimation or perniciously as a symptom formation. In other words, symptom formation is unsuccessful sublimation of the libido energy as well as of the ego energies.

Libido is the term that Freud introduces to signify the energy of the instinct of creation. At a biologic level this energy may be utilized in the reproductive processes; at a social level it goes into all kinds of creative work—art, literature, architecture and government—and is at the basis of all real civilization and culture. Without proper repression there would result no civilization and culture.

On the other side, in the pernicious liberation of the spirit that does not result in self-mastery —that is, in symptom formation—the human being attempts to rationalize, or pass the buck to others. As Rochefoucauld once reminded us, "There is no vice half so bad as the means we take to conceal it." So, ostrich-like, mankind goes about getting into one mess after another and more or less blithely or complacently rationalizes the whole thing. "George did it"; or it was "God's will," we reason, instead of our own stupidity or malevolence. This is the

point at which psychoanalysis plays its part in uncovering the hypocrisy that flourishes in high as well as low places. It becomes a great instrument for "debunking" these rationalized explanations. Naturally such a critic is not welcomed enthusiastically.

Thus another outstanding landmark in psychoanalytic thinking comes into view; namely, "resistances." We resist unwelcome truths. We would prefer to go on following our own inclinations, or as the poet once wrote:

'Tis with our judgments, as our watches,
None go just alike, yet each believes his own.

We are proud, even conceited, of our vaunted intelligence. We resist knowing what is repressed into the unconscious and go on repeating our old blunders, if not in as crude forms as in childhood, yet in slightly different types of adult make-believe.

The chief work of psychoanalysis, then, is to overcome resistances and to dig up the repressed material that is still operating in conduct to bring about maladaptation; that is, sickness, social, mental or physical. These are not different forms of sickness; they are quite allied. Just as electricity may illumine a whole city of millions, may help a person in the dark in the form of a flashlight, or may kill a careless citizen who steps on a third rail or grasps hold of a high power cable, so social disease, known as murder or theft; mental disease known as a psychoneurosis or a psychosis; or physical disease known as eczema or tuberculosis, may be due fundamentally to a faulty use of the unconscious libido activities; that is, faulty utilization of the creative instinct. This type of fault is in the unconscious, and as it involves human beings in distress, it is the function of psychoanalysis to unravel it.

Thus psychoanalysis is strictly a proceeding that is meant to study or to aid human behavior. As a study exclusively it may be utilized by any one. As a mode of adjusting the most complex of all of the body's adjustments it is strictly a medical situation.

Because physicians have had so many resistances to knowing themselves there have sprung up the great number of pseudopsychoanalysts. It was ever thus. There were astrologers before there were astronomers; there was magic before medicine. There were bone-setters and bloodletters before there were surgeons; there were midwives before there were obstetricians, and there will be innumerable grades of honest and dishonest psychotherapists before there are enough qualified medical psychoanalysts.

Housing and the Birth Rate

PARIS, since the war, has been compared to a pretty, shallow woman who has seen a great tragedy. Its picturesque quarters with their crazily patterned streets and bizarre cafés are like the face of a derelict, lined with want and vice and disillusionment.

In Montmartre, the famous haunt of artists, old people and babies are dying for want of sunlight and air. Children play in the streets or sit forlornly on the steps and sidewalks. In Belleville, the other large slum district in Paris, the streets are alive with swarming children. Adequate sanitation is unknown.

So speaks Raoul Dergeance in an article in *Welfare*.

But a new day is dawning. It has come home to the French that these living conditions are at least partly responsible for the low birth rate and the high rate of infant mortality, the prevalence of tuberculosis and other diseases. Death, disease and vice are the spirits that haunt the ancient quarters.

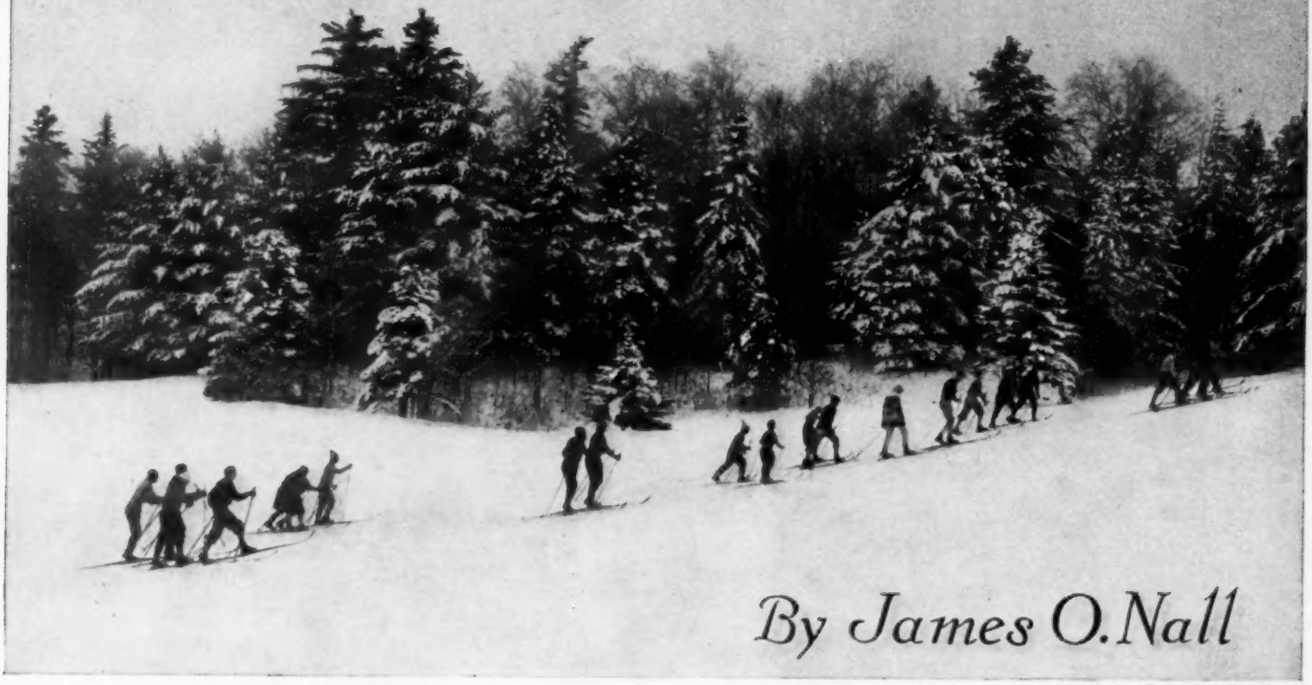
The housing crisis has become a national menace which the government has undertaken to combat. Apartment buildings of attractive appearance and modern facilities have done much already to solve the problem. A total of 8,564 apartments are now occupied.

Since the low birth rate strikes at the heart of the future of France, the houses are rented only to families with children and every facility that will encourage larger families is provided. Kindergartens and nursery schools care for children while their mothers work. Every building has a well equipped playground. Rent is reduced with the addition of a child to a family.

Outside the city of Paris the government has constructed eleven garden cities, which house families drawn from the slums of Paris. Social workers teach the mothers child care, cooking and sewing, conduct clinics and schools for younger children. Suresnes is one of the most complete and attractive of these, Mr. Dergeance says. It has its own social service bureau that works along modern scientific lines.

The kindergarten in Suresnes is a model institution, in which the children stay all day while their parents work. The community has a central bath house, other buildings for laundries and several assembly rooms. A domestic science school is run for mothers and girls at a charge of three francs a month.

A Physical and Mental Tonic



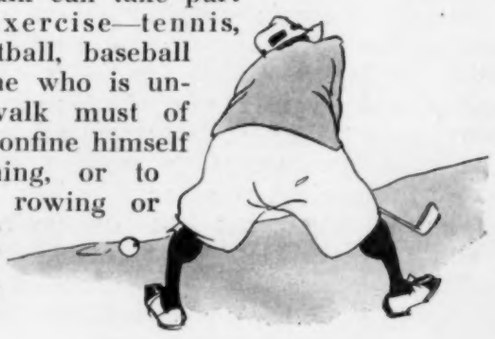
By James O. Nall

Pacific and Atlantic

EXERCISE is an aid to health. In moderation, it is a physical and mental tonic. It stimulates the body processes, increases the muscular strength and adds to one's energy for work. It is as necessary as food and play. In fact, it should be taken partly as recreation, and so combined with play. In this sense it becomes sport, a term that implies pleasure and satisfaction in muscular activity. Unfortunately it is too often taken in the form of competitive athletics, and for applause rather than for the pleasure and satisfaction it gives. In this way it is often carried to the extreme, and thus nearly defeats its purpose. There is a limit which one should keep below rather than exceed if one would obtain the benefits of exercise. Only when this limit is observed will the exercise be of real value.

Exercise has been indulged in from time immemorial. It has been a health method of all nations. Some have pursued it relentlessly, others conservatively. It has been resorted to in all forms, but principally in running, climbing, carrying, wrestling, riding, rowing and swimming. It has been the routine life of peoples who have had to depend on their own resources for physical development, for self-preservation, for protection and for sustenance. It is still the routine life among the barbarous tribes of Asia and Africa for these reasons. It was part of the training of the youths of ancient China; it was the beginning of the Olympic games of ancient Greece, and it is the foundation of all sport and physical education of the present day.

The forms of exercise are almost innumerable, but they have all developed from the simple act of crawling. The babe's first propelling activity is the forerunner of walking, running, riding and swimming. A person who cannot crawl cannot walk; nor can he run. Yet a person who can crawl but neither walk nor run, owing to some physical deformity, may ride and swim. As a general thing, one who is able to walk can take part in any exercise—tennis, track, football, baseball—while one who is unable to walk must of necessity confine himself to swimming, or to riding or rowing or some other form of stationary exercise.



A person who is unable to help himself in any way must, of course, depend entirely on others for his exercise, which is administered as massage or passive motion of the extremities. Fortunately there are forms of exercise for all physical conditions so that, as an attribute of health or as a means of preserving the health, no one need be denied its advantages.

A child's exercises consist of walking, lifting and tugging, and their variations. They are simple and natural, and require no undue mental activity. Later they develop into tag, ball games, track, tennis, boxing, wrestling and fencing. Thus the simple basic exercises of childhood develop into the games of youth, adolescence and adulthood which require thought, cooperation, skill and muscular and mental coordination. All eventually gravitate into golf if continued into middle or late adult life. Each kind of exercise is taken up and given up in its turn as the nervous system develops and as the physical changes of age make the progression necessary. As Dr. R. Tait McKenzie has said, that is why average normal boys of 10 and 12 years of age do not play golf and fence, and why adults do not build block houses and play in sandpiles.

In regard to exercise, then, the approximate ages of man may be said to be:

From 6 months to 2 years, the crawling age.

From 1 to 5 years, the walking age.

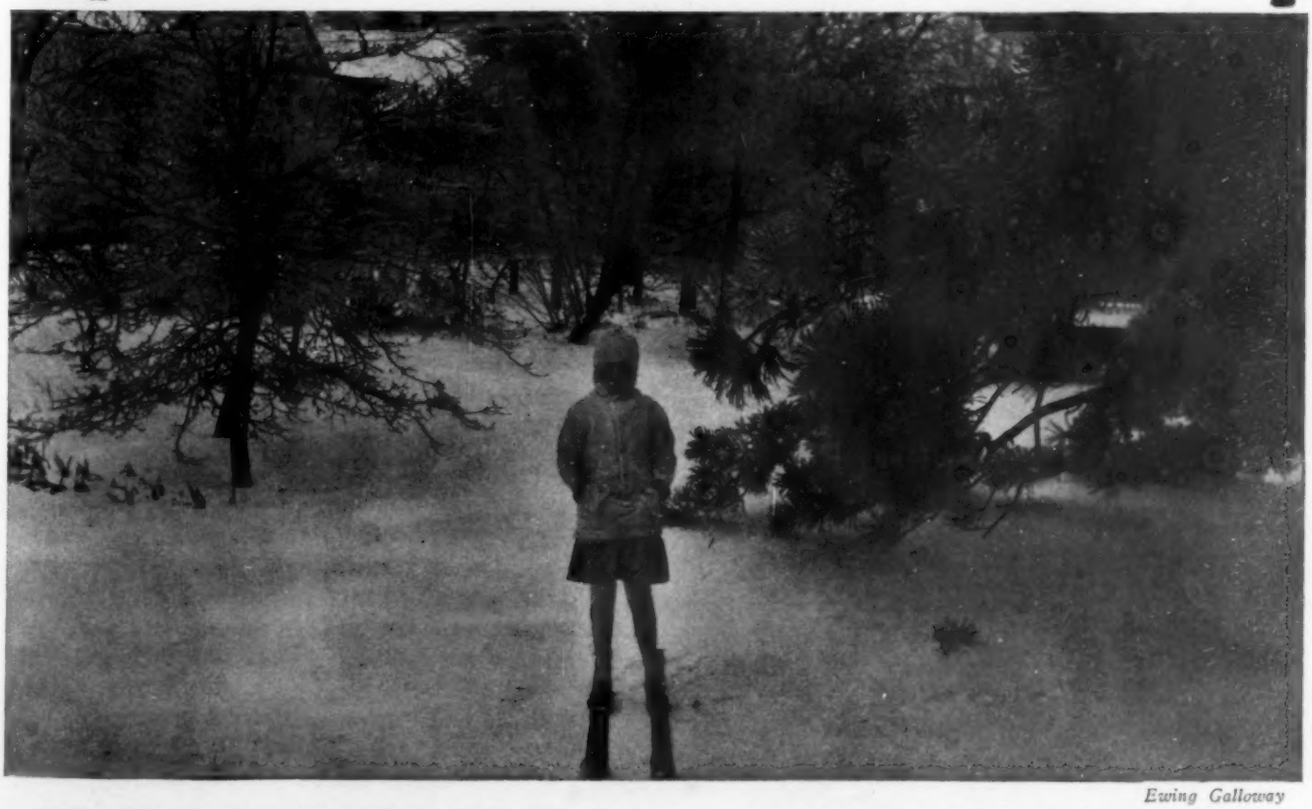
From 3 to 20 years, the running age, including tag, track and touchdowns.

From 15 to 35 years, the tennis age, including rowing and riding.

From 30 to 70 years, the golf age.

A number of authorities have computed the amounts of muscular activity that should be done daily by healthy persons at different ages. Hetherington's program calls for: four hours daily at the age of 5 years; five hours daily from 7 to 9 years; six hours daily from 9 to 11 years; five hours daily from 11 to 13 years; four hours daily from 13 to 16 years; three hours daily from 16 to 18 years; two hours daily from 18 to 20 years, and one hour daily for persons over 20 years of age. That gives the maximum amount of six hours' exercise daily from 9 to 11 years of age.

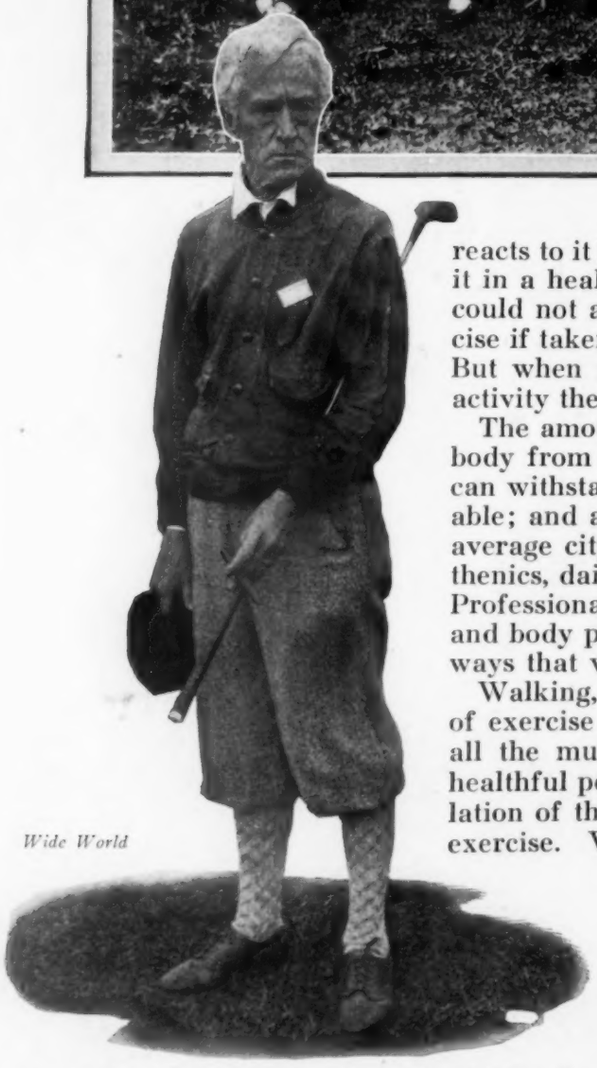
These amounts are necessary for the physical and mental well-being of healthy persons and can be tolerated without undue fatigue when interspersed with work throughout the day. They are not large for a day of work and recreation of from 12 to 16 hours. The average person's work will provide the necessary amount without any extra effort in play or recreation and some kinds of work will furnish more. The younger person can withstand more muscular activity than the adult because he has less tiring mental activity, because the developing body



Ewing Galloway

At the age of 5 years, the child requires four hours of exercise daily; from 7 to 9, five hours daily, and from 9 to 11, six hours daily.

Ewing Galloway



Wide World

The simple basic exercises of childhood develop into the games of youth, adolescence and adulthood, which require thought, cooperation, skill and muscular and mental coordination. All eventually gravitate into golf.

reacts to it better, and because the adult body needs less to keep it in a healthy condition. Needless to say, the average person could not advantageously tolerate his allotted amount of exercise if taken continuously and strenuously for the allotted time. But when it is interspersed throughout the day with mental activity the body thrives on it.

The amounts given are the amounts necessary to prevent the body from deteriorating; they are no index of the amounts it can withstand. Physical overactivity, however, is never advisable; and after the age of 30 it is positively detrimental. The average city dweller has then reached the golf age, and calisthenics, daily dozens and similar exercises are of limited value. Professional habits have been formed, and the muscle groups and body processes have become accustomed to functioning in ways that will undergo little or no change.

Walking, swimming and tennis are probably the best forms of exercise for the youth, both male and female. They bring all the muscles into action, and tennis, especially, promotes healthful perspiration. If it had no other advantage, the stimulation of that body activity alone would be worth the effort of exercise. Walking, riding and golf are the best exercises for those over 30. At either age, none of them should be indulged in to the extent of muscle soreness or stiffness. To do so exceeds the limit of benefit, overtaxes the muscles and increases the poisonous products of their activity. Exercise then becomes detrimental and may, in reality, shorten one's life. The great truth about exercise is that it has not been shown to lengthen any one's life. It merely keeps the body more active during life.

The first thing to be considered in exercising is the heart. This is not a general cause for alarm,

Photos by Wide World

however. The heart is only one organ of the body, but it is the main one. Since it is the propeller of the blood, the effect of exercise is on it primarily and on the rest of the body secondarily. Thus it must be kept in mind until the matter of exercise is settled by the family physician.

If the heart is strong and healthy, the matter may be dismissed. If it is not you should be aware of it. This will depend on any abnormal development or deformity of the heart that may have been present since birth, and on the effects of some diseases to which practically every one is susceptible in childhood or later life. They are rheumatism, scarlet fever and diphtheria. They are more prone to affect the heart than other diseases, and while it may recover in part or whole it may never be as strong afterward as it was before. It may be strong enough for the ordinary activities of life, and yet not strong enough to withstand the strain of abnormal exercise.

If you have had one of these diseases, or if you have signs and symptoms of an abnormally developed heart, such as clubbing of the ends of the fingers, undue shortness of breath on slight exertion, and blueness of the lips (which characteristics may also result from the diseases mentioned), you should consult your physician. Then be guided by his advice. He is your counselor, and his advice may prevent some condition for which there is no cure.

The healthy heart is in no danger from an ordinary amount of exercise. It has no effect other than to increase the pulse rate temporarily. Semistrenuous exercise develops a healthful enlargement of the heart and a better func-

tional capacity. Strenuous exercise is detrimental because it is exhausting.

Competitive athletic exercises are semistrenuous and strenuous. Bicycle racing, marathon running, football playing, boxing and wrestling are all competitive and all fairly strenuous. Bicycle racing and marathon running are more exhausting than the others because they demand a harder and a longer period of muscular activity. Such athletes usually have a considerable enlargement of the heart that is constant. On the other hand, any heart enlargement that results from football playing, boxing and wrestling is usually negligible and temporary because the period of muscular activity lasts for a shorter time and the training between periods is not so strenuous.

The heart normally performs a great amount of work daily, even at bodily rest. It does the equivalent of lifting the person it serves through a vertical distance of more than 500 feet. This within itself is remarkable; but it is accustomed to doing this, and so long as the necessary energy is furnished it can do it indefinitely. Nor is this capacity work for it; there is always a reserve, and this reserve should be maintained. It enables the heart to do its accustomed amount of work more efficiently. The reserve power is rapidly used up, however, in sudden strenuous exercise without a preparatory period of weeks of gradual increase; and also in prolonged strenuous exercise even when there has been a preparatory period of gradual increase. The result is exhaustion or acute enlargement of the heart, which may leave it permanently impaired and prohibit any further strenuous physical activity.

Some Benefits Derived from Exercise

The benefits of exercise are numerous:

It enlarges and strengthens the muscles and adds to the general attractiveness of the body. There is nothing more attractive than a healthy, well-developed body. Sculptors impress us with this fact; their models are always of this type. Likewise, well-built athletic men and women are more popular than others, and all are enabled to be so by proper exercise.

It stimulates the circulation. This gives the body a better blood supply, furnishes it with more oxygen and aids in the removal of waste products. Each tiny cell (of which there are millions) in the body carries on the activity of taking sustenance and eliminating waste, and this must be taken care of by the circulating blood. Such waste is excreted through the lungs, kidneys and intestines. It is detrimental if kept in the body longer than is necessary.

It encourages intestinal elimination and increases perspiration. This in turn stimulates a natural hunger for food and a natural thirst for water. It keeps the body clean and enables the brain to be more active and the mind more alert. It increases the vitality.

It corrects postural defects. It does this in some cases in which disease has been the cause, but not in all. It is specific for the average condition of stooped shoulders, weakness of the joints and laxity of the muscles. It is also preventive of these conditions. Thus it is necessary in the curriculums of high schools and colleges and in routine daily life.

It is useful in the treatment of many diseases, especially nervous disorders and diseases that cause wasting of the muscles. It is a necessity in developing the recoordination of mind and muscles following destructive injuries. Thus it is resorted to in hospitals for the insane and in the physical therapy departments of hospitals for the general treatment of disease.

How Much Exercise Is Needed?

As we follow the dictates of our body needs and our appetites in eating, we should determine the amount of exercise we need in the same way. We must keep our muscles in tone and ourselves alert and energetic. Muscular activity of the body daily should consist of the exercise of all joints.

To accomplish this, the extremities should be moved in all directions; the elbows, wrists, knees and thighs should be bent and extended numerous times; and the arms and thighs should be moved back and forth sidewise the same way. The body should be bent frontwise, sidewise and backwards; also the head, in order to give the neck the benefits of these motions. These movements will all naturally occur during the run of the day but not to a sufficient extent. Special efforts must therefore be made to give these joints the full benefit of such exercises or they will tend to become limited in motion and the muscles will decrease in strength and tone. Also, there should be a short period of deep breathing, at least twice daily, in order to expand and aerate the lungs completely.

There are no disadvantages to exercise so long as it is taken in moderation. Muscular activity, inducing free perspiration, and a bath are daily necessities. On the other hand, exhausting exercise lowers the body's resistance to disease, strains the heart, lessens the energy and may lead to collapse.

Exercise must be indulged in with due regard for one's age and physical condition. A moderate amount is a necessity for a healthy person, and when indicated it is a method of treatment for the sick. Its benefits can be evaluated, and it can be advised with a fair idea of what the result will be. It is a standard tonic, but like all other tonics it has its purpose and proper dosage.

The Runabout Child and his Problems

By Frank Howard Richardson

V. The Eyes

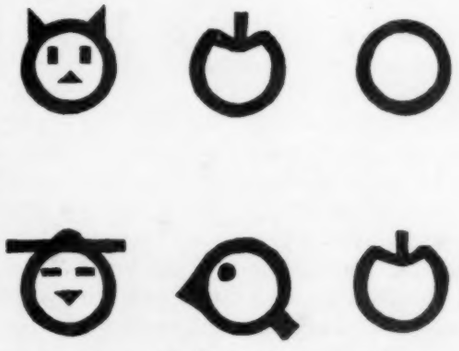
HOW early should a child put on glasses? Do eye doctors put glasses on every one they can? Isn't it better for a child not to start wearing glasses, lest he never get over the need for wearing them? Is defective vision inherited by children from their parents? Does learning to read early, or reading in a poor light, strain the eyes? How soon should anything be done for the child with cross-eye or for the child with pop-eye?

All these, and a thousand other pertinent questions, enter the minds of thoughtful parents when they think of that most precious possession of their children, eyesight. Who would be so improvident as not to want to conserve this at its best and highest potential? Yet how many of us are really doing all we can in this respect for these dependent little runabout children of ours?

One out of every five children examined by a competent oculist will be found to have defective eyesight to a degree sufficient to render glasses imperative if he is to be saved from serious eyestrain. Such a statement—and it has been verified times without number—should give us pause. It is abundant justification for the contention that every child, before commencing school, is entitled to an examination of vision by a competent oculist (a doctor skilled in the diseases and disabilities of the eye), not merely by an optician, who is nothing more than a technician trained to fit glasses. Many a child whose sight is normal on starting to school suffers a distinct injury from ordinary school conditions, to the extent of being a sufferer from defective vision long before school days are over.

If, as one might reasonably suppose, faulty vision would manifest itself in the runabout child, or at least in the early days of school life, a routine examination might be less imperative. Unfortunately, however, it is frequently possible for a child to suffer from an extreme degree of impaired sight, without this being so much as suspected by any of the elders who have the runabout in charge. Even in school, poor vision is far more apt to bring a child unmerited reproof for inattention or stupidity than it is to guarantee him the eye examination to which the least indulgent adult would at once have him subjected, were his disability recognized. In no way other than by the routine eye examination some time before school days begin can we shield the handicapped child against such a hideous injustice.

Just what constitutes a satisfactory eye examination in a young child? There is some difference of opinion on the part of the experts as to the necessity of dilating the pupil in order to make a satisfactory test; but if there is any doubt at all, it is well worth going to the additional trouble involved in getting the complete relaxation obtained by atropine. Even though the child is temporarily rendered dependent on his elders for amusement by the inability to use his eyes for fine work or play for several days, the extra trouble is not too much to pay for the additional accuracy made possible by the complete relaxation of the muscles of the eye and by complete dilatation of the iris, made possible by the use of atropine.



An eye chart used for children who do not read.

Many parents delay the examination of their children's eyes under the mistaken notion that a child must be able to read before his vision can be tested. A fair estimation of the vision of a year old child may be obtained by means of the ophthalmoscope, without any voluntary help or cooperation whatsoever on the part of the patient. Even with older children of the runabout age, the cooperation given by reading can be obtained before reading has been mastered, by means of two simple devices. One of these, the Evans optotype, involves the employment of an alphabet made up, not of letters, but of five little figures, which are variants of a simple circle, viz.: the circle itself, the bird, the apple, the man, and the cat. The child familiarizes himself with these figures, which are given him on a slip of paper a few days before the examination, so that when he sees them on the wall chart, he at once recognizes them as old acquaintances and calls them out as confidently as his elders call the letters of the alphabet.

Another Simple Testing Device

An even simpler device consists in having the letter E displayed in four different ways; first, with its arms pointing to the right, as they normally do; second, pointing to the left, as they do when the letter appears inverted; third, pointing up, as they would if the letter were lying on its back; and fourth, pointing downward, as they would if it lay on its face. Even a very young child readily gets the idea.

The defects found may be any possible combination of the three basic disabilities. These three are: far-sightedness, near-sightedness and astigmatism. The first two of these are sufficiently described by their names. The third, astigmatism, is the disability brought about by the distortion of the pear-shaped eyeball in one or another axis. The fitting of glasses consists in the prescribing of lenses that will neutralize the optical errors brought about by such disabilities as are found.

If these errors are allowed to continue unchecked, there is forced on the unwilling patient an involuntary struggle of the muscles within the eyeball to overcome these unconquerable lens errors. The result of this constant muscular contraction is eyestrain, headache, sometimes even nausea and vomiting, and many other reflex symptoms, some of which can be readily referred to the eyes, but many of which cannot be traced to their source at all. Worse even than the inabilities and disabilities already existing is the gradual deterioration that may set in from the hopeless overwork to which these delicate organs are thus doomed. The wonder is, not that they give out as quickly as they do, but that they withstand ill usage as long as they frequently do.

In the case of squint, either internal (cross-eye) or external (pop-eye), there is added a further element of danger. The fact that the eyes do not focus on the same point means that a confusing double image is constantly seen. In order to avoid this confusion, the mind unconsciously tries to suppress the weaker of the two images. In this it is unfortunately too successful; so that by the time dilatory parents are willing to have the eyes examined—say, as school age approaches—the function of the weaker of the two eyes may have actually disappeared from disuse, and a degree of impairment of vision amounting to virtual blindness has come on. When the eyes of any runabout child visibly fail to converge, complete and careful examination is of vital importance. It can be postponed only at the risk of vital permanent damage to the vision.

Year Old Child Can Wear Glasses

It is surprising how early a child who needs them can wear glasses. By the simple device of placing eyelets or rings in the templets of spectacles, passing a tape around the back of the child's head and tying each end of it into one of these rings, a year old child who needs glasses can wear them with perfect comfort and with no more frequent breakage than occurs with older wearers of glasses. In fact, it is interesting to note how little children seem to realize the comfort that correct glasses bring, and how they cooperate with the parent in wearing them carefully and successfully.

Fathers seem more reluctant to have their children "start wearing glasses," as they phrase it, than mothers. The idea seems to be firmly ingrained that, once glasses are put on, they must be worn for life; whereas if this fateful first step be deferred, the ignominy may somehow be avoided. Of course, if a permanent error of vision exists, it will call for permanent wearing of glasses; but even in this case the need will become only more exigent by deferring the fitting of proper glasses, because of the added strain. On the other hand, slight errors of vision are sometimes cured by wearing glasses for a few years, a cure that could not take place were this aid to vision denied, owing to the mistaken pride of parents.

Unquestionably the eyes can be strained, either by too early concentration on reading or by reading in poor light. It is especially desirable that large print be provided for the runabout child when he begins to learn to read. It is equally important that he be given large rather than fine work to do in the kindergarten, when he threads beads and stitches cross-stitch designs in worsteds. The old stint of fine stitches and tiny seams cost an incalculable toll in damaged vision, in the days of our grandmothers.

Do oculists put glasses on every one who comes to them? They certainly do—on as many of them who come to them as need them! Since few persons go to have their eyes examined who are not suffering from eyestrain, it follows that the majority of them have glasses prescribed to cure them of their ills. When the time comes that people go to the oculist as many sensible people now go to the dentist, for an occasional check up, the oculist's score of 100 per cent glass-fitting will be appreciably lowered. Let us hope that this day will not be too far distant.

Shingles

By Clark W. Finnerud

THERE is an old saying that if shingles meets, the patient will die. It is a perfectly safe saying, as shingles probably never has encircled the head or body.

Herpes zoster, popularly known as shingles, is an acute skin disorder with characteristics usually so uniform that the well informed person should be able readily to recognize it. It is not urged, however, that a person rely on his own ability to diagnose and treat such a case, as shingles is sometimes serious. At its best, the disease is usually responsible for so much discomfort that a physician must be sought for relief.

The other common variety of herpes, which is herpes simplex, or "cold sores," is not to be confused with the variety here described, as they have few characteristics in common.

Shingles occurs at all seasons but is probably most common in the spring. It affects the sexes about equally and occurs in persons of all ages, although infants and young children are only rarely affected. Although the disease usually occurs secondary to some infectious disorder, such as the common cold, an acute ear infection, a sinus infection, rheumatism or any one of the numerous other infectious diseases, it sometimes makes its appearance as the result of an injury or following the taking of arsenic. Arsenic is administered in one form or another in tonics and in the treatment of numerous skin and nervous diseases—among them syphilis—as well as in several other disorders.

However, in many cases of shingles there is no preceding injury, no history of drug taking, and no history or sign of any preceding or accompanying infectious disease. It is thought that usually, if not always, the eruption is the result of an infection of the root of one or more nerves and that this infection causes an inflammation in the nerve and results in pain along its course. The skin affected is that over the affected nerve, whatever the path distribution of the nerve may be.

Imagine a person with a painful, interrupted band of water blisters, an inch or so wide, occurring on red, somewhat swollen skin extending from the spine behind, between and over two adjacent ribs to the midline in front, thereby forming a semicircle on either the left or the right side. This is the most common picture seen in shingles. Imagine the same band of blisters occurring on one side of the head, extending from the back portion to the middle of the forehead, nose or chin. This is probably the next most common manifestation of the disease.

The disease occurs as irregularly shaped groups of deep water blisters, which usually follow the path of distribution of a nerve. There may be only a couple of these groups, there may be a dozen or more, or the blisters may be so numerous as to form a solid band. Each group usually is about the size of a coin, and contains from three to more than a dozen blisters varying in size from the diameter of the ordinary brass pin to that of the head of a large match. The skin between these groups of blisters is of normal appearance.

One of the striking features of this disorder is the fact that

it is unilateral. It may occur on one arm or on one lower extremity, on one side of the face or neck, or, as is most commonly the case, on one side of the trunk. Whereas on the trunk and head the distribution of the eruption is approximately horizontal, in the instance of the extremities it occurs along the arm and forearm or thigh and leg, this being the course of the nerves.

Ordinarily, from two to four days are required for the eruption to reach its height of development and during this period new groups of blisters continue to form. The eruption remains at a standstill for a few days, and then gradually begins to disappear, the first groups of blisters to form being the first ones to become crusted and absorbed. During the first week or so of the eruption, and for a few days preceding it, the superficial lymph glands of the body nearest the outbreak—that is, those of the neck, armpit or groin as the case may be—are usually tender and enlarged.

Disease Is Painful

As a rule, the eruption is painful. The pain may be a constant burning one or it may be sharp and knifelike. The area destined to be the location of the outbreak often is the seat of neuralgic pain and other sensations for a week or two before the blisters actually make their appearance. In some instances, however, particularly in children and young adults, there is no discomfort at any time, the eruption being discovered accidentally. Another exception to the general rule is that, while ordinarily after the eruption clears no discomfort is felt, persons past 50 years of age frequently have a distressing neuralgia at the site of the eruption, which may persist for weeks or months.

The disease usually runs its course in two or three weeks. Not uncommonly pits or scars are left at the site of the blisters and these, when they occur on the face, may be disfiguring. Fortunately, one attack of shingles usually confers immunity, and the afflicted person is not troubled by the disease again. In rare instances a second attack of shingles has occurred, and in still rarer instances it has been known to occur simultaneously at more than one level.

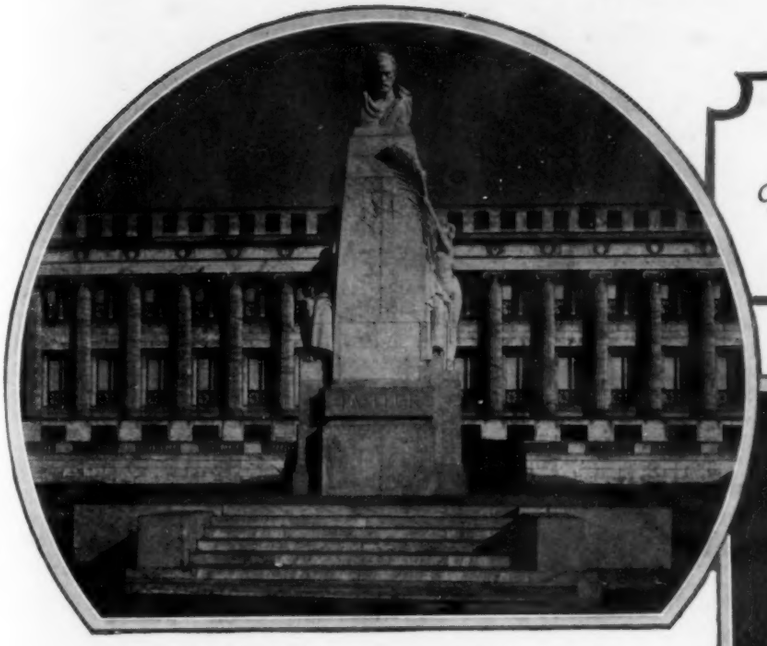
Related to Chickenpox

Although herpes zoster is not regarded as a contagious disease, there is foundation for the belief that it is mildly contagious. Too many cases are on record of persons developing shingles after exposure for the occurrence to be considered coincidental. The disorder is known definitely to be of infectious origin, although the organism responsible for it has not been discovered. It may be that the causative organism of herpes zoster is so small that even the highest powered microscope cannot detect it.

The causative organism of shingles apparently is related to, if not identical with, the one responsible for chickenpox, as an eruption resembling chickenpox not uncommonly occurs with, precedes or follows shingles. Also, it has been frequently noted that persons exposed to shingles have developed chickenpox and others on exposure to chickenpox have developed shingles.

Although shingles is a self-limited eruption, it should not be regarded too lightly. Aside from the persisting scars and neuralgia that may occur, when certain nerves of the face are involved it may even be responsible for the loss of sight in one eye.

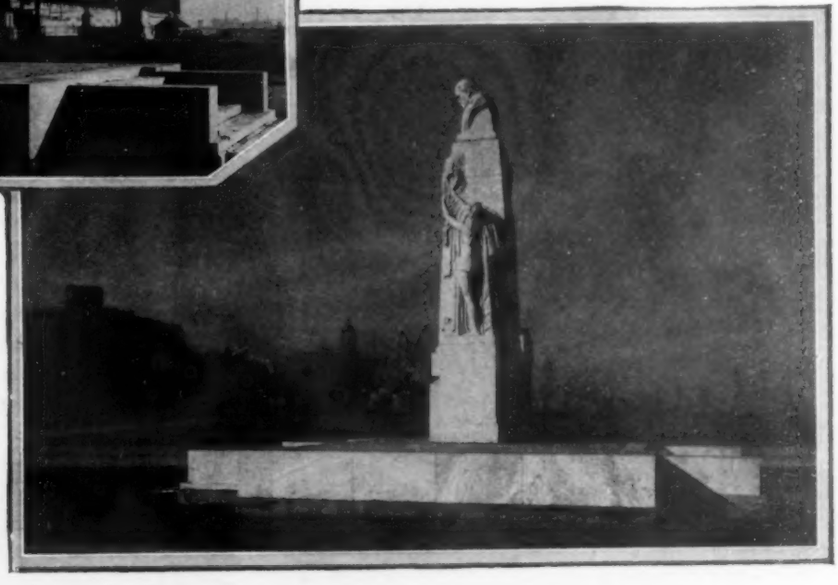
New Views of PASTEUR MEMORIAL, *Chicago*



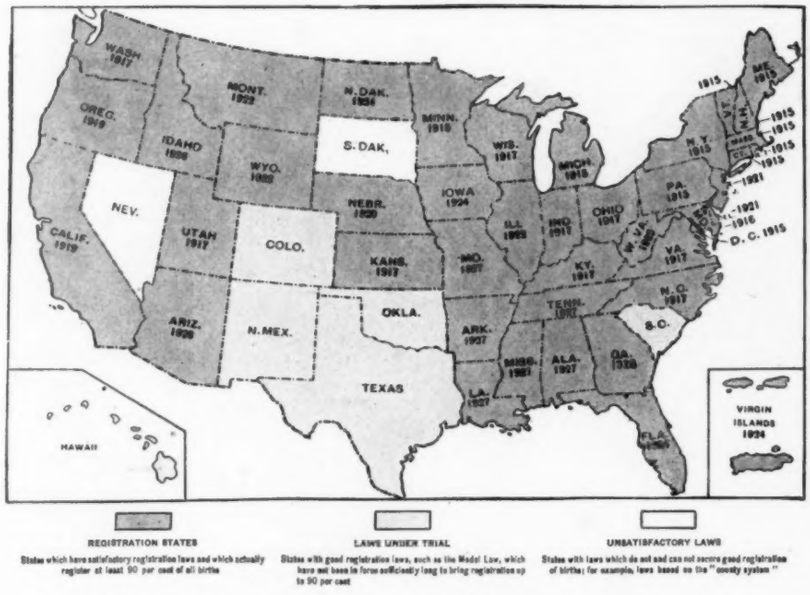
The Field Museum, in the background.

To the east, Lake Michigan.

To the south, the great stadium.



Looking toward the Michigan Avenue skyline.



The birth registration area of the United States for 1928. It represents 89.9 per cent of the total population and is composed of forty-one states. The figures represent the year in which the state was admitted to the area.

A Life

II. The Compilation of Vital Statistics

SCARCELY had Washington taken the presidential chair and the new government of the United States of America fairly started in 1789, when it was proposed to take a census of the scattered population. The following year the great task was undertaken, because our forefathers realized the importance of such information as a census would give. It might be supposed that the task was far easier in those days than now, the country being so small, but we must remember that there was no existing organization with experience in such matters and there were no elaborate statistical methods worked out as at present.

Varied Facts Gathered by Census-Takers

Each decade since 1790 has seen the census-taker making his rounds, recording not only the name, age, occupation and sex of each individual but collecting an immense amount of other information as well. In the latter censuses there have been taken the value of the property owned, the number of acres of the various crops under cultivation, the number and kind of livestock and every sort of information that might conceivably be of interest or use to some one. So varied has become the work of the bureau of the census that it is almost impossible to comprehend its enormous scope. It is an important branch of the Department of Commerce and is housed at Washington.

Not only does the bureau make the great effort of census-taking each ten years but it also collects other information at other times—continually, in fact. It has arranged certain standard methods of reporting births, deaths and transmissible diseases. Such states (and large cities of other states) as choose to conform to the requirements of the bureau and send in their data regularly are grouped into what is known as the United States registration area. From the data so obtained the widest variety of statistical tables are arranged.

What Comprises Registration Area?

The registration area for deaths is not quite the same as that for births. About 93.5 per cent of the total population of the United States was in the area at the beginning of the year 1928. Most of the states still outside have cities that have been accepted.

One of the requirements of the census bureau is that the standard death certificate shall be used. This is filled out by the physician in charge and must be presented to the local health office before a burial permit can be issued to the undertaker. The health officer receives and forwards these certificates to the county health officer, who records them and sends them on to the state health department, where they are filed and kept permanently. The state department transcribes copies from the original certificates and sends them to the bureau of the census. At Washington the deaths are classified as to cause, age, sex, season and on whatever other basis may seem pertinent. This is the ultimate source for all our vital statistics concerning deaths.

The registration area for births is somewhat smaller, consisting of 89.9 per cent of the entire population. Most of the states are now in the registration area; a few have satisfactory laws

and Death Matter

By

Thurman B. Rice

The death registration area of the United States for 1928. It represents 93.5 per cent of the total population and is composed of forty-three states and eleven registration cities in nonregistration states. The figures represent the year in which the state was admitted to the area.

but have not been in long enough to bring the reports up to the required percentage. The only states that are in neither of the areas or in the process of getting in are Nevada and South Dakota. The goal for the bureau is to have every state in the registration area by 1930.

Standard birth certificates are used. These are handled in much the same way as the death certificates. They are more likely not to be turned in because in the case of death the certificate is necessary in order to get permission to bury the corpse. There is no corresponding check on birth reporting.

Checking Up on Registrations

Frequently the bureau sends a man to check the records of a given state or city board of health. Cards are also sent out to the heads of households asking them if a death or birth has occurred in that family in the last twelve months. From this data it is possible to ascertain if the reporting is being done in a satisfactory way. Ninety per cent of all certificates reported will permit a state or city to remain in the area. It is easy to attain this percentage of deaths reported, but much harder to get so many birth records turned in.

Physicians are required by law to report births and deaths promptly. The bureau has the right to demand further information if the certificate is not filled out satisfactorily. It has a right to refuse to accept reports which give evidence of being incorrectly filled out or in which the cause of death ascribed is unreasonable or ambiguous.

One might ask the need of going to so much trouble about a dead person, but there are many reasons why deaths should be reported. Perhaps we can do no better than to copy the reasons set forth by the bureau itself:

1. Certificates of death, or certified copies of them, are constantly required in courts and elsewhere to establish necessary facts.

2. Pensions or life insurance may depend on proper evidence of the fact and cause of death.

3. Titles and rights to inheritance may be jeopardized by the failure of records.

4. Deaths should be registered that public health agencies—national, state and municipal—may know the causes of death and act promptly to prevent epidemics.

5. Deaths should be registered promptly that the success or the failure of all measures attempted in the prevention of disease may be accurately determined.

6. Deaths should be registered that individual cities and localities may learn their own health conditions by comparison with the health conditions of other communities and determine thereby the wise course of public health activity.

7. Deaths should be registered that homeseekers and immigrants may be guided in the selection of safe and healthful homes.

There are even more reasons for the registration of births. It is no exaggeration to say that births are the most important events in the life of a nation.

Why Register Births?

The reasons for birth registration as set forth by the bureau are:

1. As evidence to prove the age and legitimacy of heirs.

2. As proof of age to determine the validity of a contract entered into by an alleged minor.

3. As evidence to establish the age and proof of citizenship and descent in order to vote.

4. As evidence to establish the right of admission to the professions and many public offices.

5. As evidence of legal age to marry.

6. As evidence to prove the claims of widows and orphans under the widows' and orphans' pension law.

7. As evidence to determine the liability of parents for the debts of a minor.

8. As evidence in the administration of estates, the settlement of insurance and pensions.

9. As evidence to prove the irresponsibility of children under —— (determined by state law) years of age for crime and misdemeanor, and various other matters in the criminal code.

10. As evidence in the enforcement of laws relating to education and child labor.

11. As evidence to determine the relation of guardians and wards.

12. As proof of citizenship, to obtain passports.

13. As evidence in the claim for exemption from or the right to jury and militia service.

When birth or death certificates come to the vital statistics office of the state or federal department the data are transferred to cards covered with numbers.

Each pertinent fact on the certificate can be represented by punching out smooth, round holes through the numbers on the card. An ingenious machine has been devised to expedite this process. Diphtheria, for instance, is represented by the number 10; cancer of the breast by 47; suicide by drowning by 169.

These punched cards are then filed in suitable cases. At any convenient time they can be run through a most ingenious sorting machine, which rapidly divides them at the rate of 400 per minute on any desired basis made possible by the data punched on the cards. If, for example, it is desired to know how many persons have died of pneumonia the machine can be set so it will sort out all cards bearing the number 101. These pneumonia cards can then be sorted on basis of age, sex, color, nationality, month of death, etc.

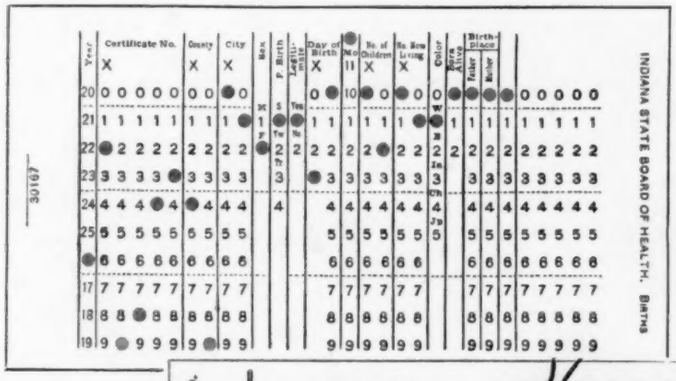
Birth certificates are transferred to corresponding cards and handled in much the same way. From the entire registration area an enormous number of such cards are of course produced, so it can be seen that these sorting machines save a prodigious amount of work. When the number of deaths from a given cause is known, and the population known or computed, it is possible to obtain the mortality rate for that particular disease by use of the following formula:

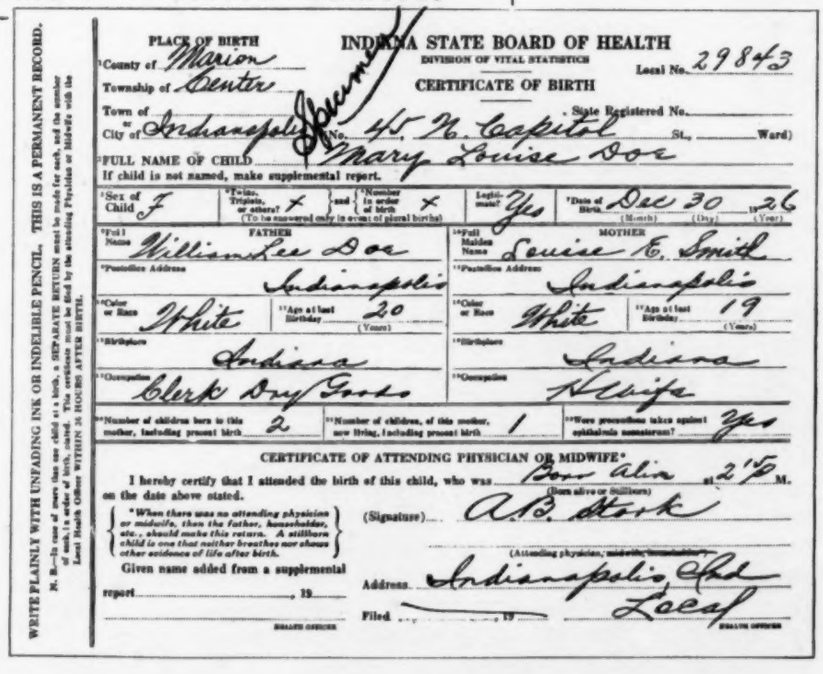
$$\frac{\text{Number of deaths} \times 100{,}000}{\text{Number of population}}$$ equals death rate per hundred thousand.

That is if a city of 400,000 has 16 deaths from typhoid in a given year the rate is computed:

$$\frac{16 \times 100{,}000}{400{,}000}$$ equals 4. But no matter how carefully the data are handled vital statistics can be no more accurate than the data on which they are based, so it is important that we understand as fully as possible the more common sources of errors that creep into the data.

It is rare that the death certificate is not filled out, because the undertaker can get a burial permit only when that document is properly presented, but of course the health officer may lose the certificate after it is turned over to him, or it may be




INDIANA STATE BOARD OF HEALTH
DIVISION OF VITAL STATISTICS
CERTIFICATE OF BIRTH
PLACE OF BIRTH
Local No. 29843
County of Marion
Township of Center
Town of or City of Indianapolis
No. 45 N. Capitol St. Ward)
State Registered No.
FULL NAME OF CHILD Mary Louise Doe
If child is not named, make supplemental report.
Sex of Child F
Twin, Triplet, or others? X and Number in order of birth X
(To be answered only in event of plural births)
Legitimate? Yes
Date of Birth Dec 30 26
(Month) (Day) (Year)
FATHER
Full Name William Lee Doe
Postoffice Address Indianapolis
Color or Race White
Age at last Birthday 20 (Years)
Birthplace Indiana
Occupation Clerk Dry Goods
MOTHER
Full Maiden Name Louise E. Smith
Postoffice Address Indianapolis
Color or Race White
Age at last Birthday 19 (Years)
Birthplace Indiana
Occupation Wife
Number of children born to this mother, including present birth 2
Number of children, of this mother, now living, including present birth 1
Were precautions taken against ophthalmia neonatorum? Yes
CERTIFICATE OF ATTENDING PHYSICIAN OR MIDWIFE*
I hereby certify that I attended the birth of this child, who was Born alive at 2 P.M.
(Born alive or stillborn)
on the date above stated.
(Signature) A.B. Stork
Address Indianapolis Ind
Filed Local
WRITE PLAINLY WITH UNFADING INK OR INDELIBLE PENCIL. THIS IS A PERMANENT RECORD.

A standard certificate of birth and the tabulation card (above) punched to represent the data on the certificate.

lost in the mails or destroyed in some way. It may be lost at the central office or the transcriber may miss it.

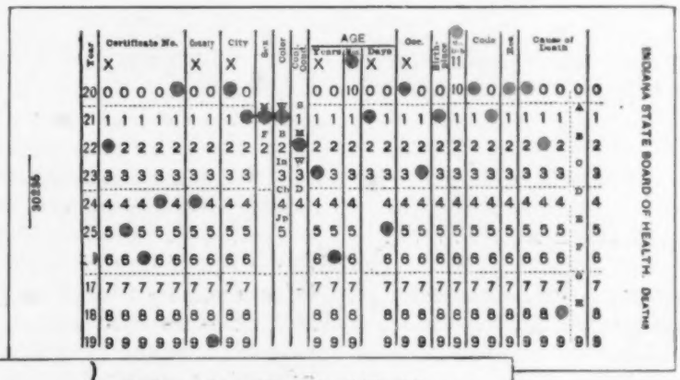
The commonest error is, however, in the assigned cause of death. There will always, of course, be mistakes in diagnosis, and as a matter of actual fact such mistakes are more common than many would suppose. Previous to 1895 one does not find appendicitis listed as a cause of death, since physicians did not recognize it and called it by other names. Tularemia has until recently not been recognized but has been considered as typhoid or some other condition, and of course this error will continue, though with decreasing frequency, to vitiate the records for many years.

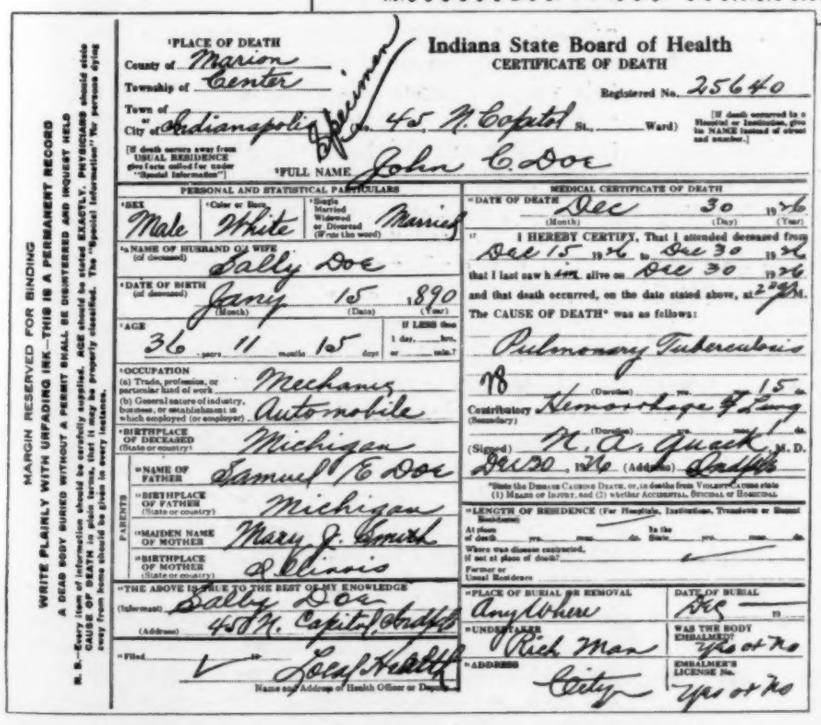
Not infrequently death is deliberately ascribed to some cause other than the correct one. Syphilis causes much higher mortality than the records show because it is rarely given as a cause of death. The attending physician is usually the good friend of the dead person's family and wishes to spare the feelings of the relatives, so he can usually find a more "euphonious" word than syphilis to ascribe as the cause of death, since he knows, of course, that the certificate becomes a part of the permanent records in the government's archives.

Sometimes the fact that the deceased had accident or life insurance will influence the statement of the cause of death. Some will insist that such practices are highly immoral, but we wish merely to point out that they are truly human. Practically all of us would do the same under the same circumstances or would permit it to be done if the deceased were from our own family. Just the same, whatever may have been the motive, the value of the statistics derived from such data is undermined.

A child has measles and, while convalescent, contracts pneumonia and dies. Should the death be charged to the one or the other? It is hard to say. However that may be, it is evident that the statistics based on such data cannot be considered absolutely correct.

In the case of birth reports the most probable error lies in failure to report. The busy practitioner is sleepy the morning after the confinement case and forgets, or the less busy one may be careless and neglect making the report. Sometimes the child is not named; the physician waits until he can give the complete name, and the recording of the birth passes out of his mind.




Indiana State Board of Health
CERTIFICATE OF DEATH
WRITE PLAINLY WITH UNFADING INK—THIS IS A PERMANENT RECORD
A DEAD BODY BURIED WITHOUT A PERMIT SHALL BE DISINTERRED AND INQUEST HELD

A standard certificate of death and the tabulation card (above) punched to represent the data on the certificate.

Morbidity reports—reports of cases of transmissible diseases—are notoriously inaccurate, because many cases are not reported. Mild cases, atypical cases, missed cases, ambulatory cases and the like are rarely indicated in the data. If one compares the number of reported cases of a given disease with the number of deaths from it the fatality percentage is practically always far too high.

It is not my purpose to pick flaws with the validity of statistics that are constantly used, but it is rather to warn against making fine and absolute deductions from data that are admittedly inaccurate.

It is possible to use vital statistics with accuracy only when all these possibilities for error are understood. There is no doubt that the data are getting more accurate year by year, and it is probably true that the United States registration area is the most accurate large statistical organization in the world.

Overcoming

By Donald A. Laird

In an empty house the voice and footsteps reverberate through the bare rooms, because the walls reflect sound waves.

IT IS becoming increasingly complicated to know how to live. A few years ago the importance of keeping disease germs out of our homes became generally known in America, perhaps better than in most other countries, and the result is now that the hygienic rating of the average American home is vastly improved.

Then came the discovery of the importance of getting the beneficial ultraviolet waves of the sun's rays admitted to the home, even though they may fade brightly colored drapes.

Noises Generate Fatigue

Now comes an increasing growth of scientific knowledge about noise, which is leading many home builders to consider how to keep irritating and fatigue-generating noises out of the places in which we live.

The tremendous growth of our cities and the development of motor transportation on all streets and country lanes has increased many fold the noise that bombards homes. There is scientific evidence that we have to pay a price in health and fatigue for this greater noise in our environment.

The late Joseph Pulitzer learned for himself that noise was to be avoided if possible, although he lived at the turn of the century before it was really known how noisy a residential district could be. He had noiseproof rooms built into his city and country homes and spent much of his time on his yacht at sea.

Arthur Brisbane has found that city noises are greatly dimmed if he writes from the topmost floor of a skyscraper. Will Hays has taken an apartment thirty-seven stories—more than 500 feet—from the source of street noises in Gotham.

There are less spectacular and just as effective methods the average householder can follow to produce a desirable quiet.

The average person, however, has to be convinced that noise is to be avoided. Of course there are a few chronic grouches who are irritated even by the squeak of a new pair of shoes. But persons who maintain a serene disposition in the presence of average city noises are being adversely affected by these noises without their realizing it, as experiments plainly reveal. In this respect most people are like the frog that can be slowly boiled alive if the temperature of the water in which he is placed is raised by slight degrees until the boiling point is reached.

Ears Become Dulled

This is the phenomenon of sensory adaptation, or dulling. The sensitive nerve terminals in our ears can become dulled in like fashion so that we do not think that we mind the noise, but laboratory records show that we still have to pay the price for it. It did not save the frog's skin that his senses were dulled, and it will not benefit man to neglect protecting himself against noise.

Some of this protection is absurdly simple. Shortly before Christmas, for instance, I moved into a new apartment. The first ten minutes—before the furniture had been arranged, in fact—I discovered that the electric door bell was tuned so that it was startling. While I have no measures, I would guarantee that it raised blood pressure. This was simply remedied by taking a screwdriver and removing the gong part of

Noise in the Home

As soon as the house is occupied many of these reverberations cease, because rugs and draperies absorb noise.

the device. Now there is a pleasing buzz whenever some one calls.

We have to pay a price for many noises because our nervous systems are organized to help us survive. This paradox is solved when we realize that in primitive times noise often meant the approach of enemies or the presence of danger. Noises in consequence precipitate what is known as the fear reaction. A bolt of thunder, the boom of a tire blow-out or the crack of a pistol are everyday experiences to illustrate the fear reaction with its altered breathing rate, and especially heart changes and muscle tightening. Less intense noises cause all the essential changes of the fear reaction, although all noises, of course, should not be assumed to do this. It is known that noises of average city intensity do cause this, however, and that we have to pay a price for them in widespread and often damaging bodily consequences.

Noisy Offices Consume Extra Energy

The typist in a noisy office, for example, burns up her bodily energy about 20 per cent more rapidly than if she were in a quiet office. This is a part of the price she has to pay for the moderate fear reaction.

The effects of noise on sleep are interesting. Scientists at the University of Michigan some years ago found that the noise of a passing taxicab raised the blood pressure of a sleeper, although he was not awakened. Experimenters in the Colgate laboratory, under the leadership of James Lewis, discovered last year that the slight noise made by walking past a sleeper's bed on tiptoe increased the sleeper's muscle tension almost to waking, although he did not awaken and after getting up did not know that any one had been near him during the night. A pernicious feature of noise disturbances while sleeping is that the bodily change lasts for as much as half an hour after the noise has ceased.

Aids to Quiet Sleep

Sleeping rooms, especially, should be guarded against noise. A great amount of disturbing noise could be avoided merely by closing the windows, but this would prevent the entrance of fresh air. I have solved this problem in my sleeping room by having a small box built out of noise-absorbing wall board scraps, which still admits fresh air while keeping much noise out. More effective window mufflers are on the market, but my little home-made contraption is a help.

Children's sleeping rooms should be given especial attention in this regard. They must be protected against household noises, such as the radio, conversation and laughter. The doors of their sleeping rooms should be kept closed and further safeguarded with complete felt or tightly fitting, soft rubber weather stripping. It is astonishing how much noise can seep into a room through a tiny crevice. Even the keyhole should be covered or plugged, else much of the other endeavor will not produce adequate quieting.

If the radio loudspeaker is fastened to the wall the programs will have a devilish tendency to travel through the entire house through increased wall vibration.

Houses themselves, however, are usually quiet. The damaging noises enter from outside.

Many of these could be avoided by giving careful thought to the location of the home. When traveling, for instance, I always select a small hotel away from traffic centers.

If the site favored for other reasons is located in a section which has considerable traffic the outside noises can be prevented from entering the home by setting the house far back on the lot and by using principally the back windows for ventilation. Since changes in city planning may make a quiet location change into a noisy one in a few years, it is a wise precaution always to set the house as far back from the street as possible, and to see that the floor plan allows for adequate ventilation if only the rear windows are used. Careful and tight weather stripping of all windows and doors will further help.

Blotting Out Noises

Not all outside noises can be kept outside of the house, except by highly expensive and impractical construction. Some of them may be attacked from inside the house. This can be done by absorbing or blotting the noises.

If you have looked over an empty house you have doubtless been impressed by the way in which your voice and footsteps reverberated or echoed through the bare rooms. This is due to the walls reflecting rather than absorbing the sound waves. It tends to keep sounds alive for as long as ten seconds under some conditions. This will cause a piling up of noises so that speech cannot be understood, as a result of the interference of the reverberations of words spoken five, six or ten seconds previously.

As soon as the house is occupied many of these reverberations disappear because rugs and draperies absorb noise. Materials that have this power of absorbing sound to a high degree can be used in the construction of the walls, so that there is further reduction in noise.

A house in a university city in Illinois was constructed with the walls of sound-absorbing material with remarkable results. The quietness of the home was soothing to the utmost. One could take an afternoon nap without being disturbed by passing traffic and auto sirens.

An amusing development at this house was that friends complained that the owners did not answer the telephone and door bells. Investigation revealed that when upstairs they could not hear the bells. Consequently an extension from each bell had to be installed on the second floor. As soon as this was done their friends ceased thinking they were being snubbed.

The sound-absorption value of various decorative and upholstering materials should be taken into consideration when furnishing a home. Ordinary lace or net curtains absorb little noise. Heavy velour drapes, which hang in folds, have great absorption value. Cretonne has slight absorption value and helps quiet the interior of a house but little.

Leather upholstering has no absorption value. Tapestry has a slight but almost negligible absorption. Velour and mohair are to be recommended from this point of view since they are the best noise absorbers among the upholstery materials. Preference should be given to upholstered chairs, because bare wood chairs have little value in absorbing noise. Velvet table runners help to add more absorption units to the house.

Floor covering can be chosen to give greater quietness. Footsteps, of course, are quieted by rugs. But in addition a thick pile rug has great power to absorb outside noises. Thick rugs are a profitable investment not only in longer wear and greater comfort but in bringing greater quiet. It is astonishing how much quieter a room becomes if every inch of floor is covered; a large border of finished floor absorbs practically no noise.

Linoleum and rubber floor coverings do not help in noise control except for making footsteps less noisy. They absorb almost no noise waves.

Increasing the Number of Absorption Units

Noise-absorbing material can be introduced into the home in interesting ways. I have used scraps of sound-absorbing wall board, for instance, to line the bottoms and backs of my bookshelves. By this simple odd moment undertaking fifty absorption units have been added, more than if a second rug, 9 by 12 feet, had been added to the room.

Folding screens can be covered with sound-absorbing material in place of the traditional burlap and more sound-absorbing units brought into the house with beneficial results.

Three practical things to bear in mind about your home are: We have to pay a price for noise; we should keep all possible noise out of the house, and all possible noise should be absorbed after it once forces its way into the house. These will help make a better, more healthful home in which to live.

CONSUMPTION CURE QUACKERY

By Arthur J. Cramp

THE menace to the consumptive is the quack who uses all the arts of modern advertising to convince the person with tuberculosis that the long hoped-for specific has been discovered. The consumptive is especially susceptible to quackery. He shares the general belief that for every ailment there is a remedy that will cure, if one only knew where to find it—the age-old idea that every illness can be cured by taking something out of a bottle. Add to this the fact that the reputable physician frankly admits that he knows of no drug that will cure tuberculosis. Then, too, the remissions, or periods of improvement, that are so common in this disease create an optimism that plays into the hands of quacks, as does also the temporary improvement that is likely to follow any change in the treatment of the disease.

Chiefly a Mail-Order Business

The "consumption cure" is exploited mainly by mail-order quacks. Some have flourished for a few years and have gone out of existence only after their worthlessness was made clear by the facts published by the American Medical Association. Some mail-order "cures" of more recent vintage have been investigated by the federal authorities, declared frauds, and debarred from the United States mails. Some still are sold.

The fake consumption cure can be abolished only through education. Consumptives, like other people, are gullible not because they lack brains but because they lack knowledge.

The national Food and Drugs Act was largely responsible for the disappearance of the quack consumption cure from the shelves of the drug store. Then, too, the ethical standards of the advertising departments of the better newspapers and magazines bar advertisements of cures for consumption. The federal law, which went into effect Jan. 1, 1907, makes lying on or in the trade package illegal instead of merely immoral, and products that before the passage of the law were frankly labeled as "cures" for consumption had to change their names when the law went into effect. Thus the product, "Dr. King's New Discovery for Consumption," which was advertised as the "only sure cure for consumption in the world," became after the passage of the law "Dr. King's New Discovery for Coughs and Colds." "Piso's Cure for Consumption" became "Piso's Remedy, a Medicine for Coughs, Colds, etc." A morphine and arsenic mixture called "Hoff's Consumption Cure" became "Hoff's Prescription."

This article does not give any details in the exploitation of various quack remedies for consumption. Those who want more specific information on the subject will find it in a pamphlet "Consumption Cures, Cough Remedies, Etc.," prepared by the bureau of investigation and published by the American Medical Association; the price is 30 cents. All that is attempted here is to give in paragraph form the essential facts regarding some of the quack remedies that have been dealt with by the bureau of investigation of the American Medical Association.

Some Quack Consumption Remedies

Addiline.—The Addiline Company of Columbus, Ohio, sold this product at $5.50 a bottle.

It consisted of a few cents' worth of kerosene and turpentine, with a small amount of aromatic oil. The chemists who analyzed the stuff expressed the opinion that it might make a good furniture polish.

B. & M. External Remedy.—This piece of quackery of the National Remedy Company, Boston, was analyzed some years ago by the department of health of Massachusetts and reported to be a mixture of oil of turpentine, ammonia and water. In December, 1920, the National Remedy Company was found guilty of falsely advertising its product and was fined.

Balzone (Vitalis System).—A quack, one N. L. Waelchli, exploited Balzone from Denver. Later he moved to Chicago and sold his "cure" as the Vitalis System. Waelchli is an ex-service man who claims to have cured himself of tuberculosis in 1920. Official records, however, show that, in 1928, Waelchli was still accepting compensation from the U. S. Veterans' Bureau. Balzone was, essentially, a little colored water containing a few drops of some volatile oil, similar to pine oil. The instructions were to bring the water to a boil and inhale the steam.

Brown's New Consumption Remedy.—A negro, D. H. Brown, operated this fraud from Jacksonville and St. Augustine, Fla., swindling unfortunate consumptives of his own race. The nostrum was declared a fraud under the Food and Drugs Act and Brown was fined. He then removed the fraudulent claims from the trade package, so as to be exempt from the national law, but continued to make them in newspapers and circulars. Then Brown changed his trade name to Magnolia Remedy Company and a fraud order was issued against Brown and his company. This was in effect for about three years, when Brown filed an affidavit declaring that he had absolutely abandoned his scheme and would not engage in any such activities in the future. As a matter of fact, Brown continued to sell his fake under still another name, Creoco Remedy Company. The postal authorities in due time simply extended the fraud order to cover the new name. The stuff was merely a compound of creosote and malt extract.

Brunson-Holderness Gas Treatment.—Two quacks (Asa Brunson and James S. Holderness) exploited from El Paso, Texas, what the newspapers described as the "gas treatment" for tuberculosis. It was one of the inhalant fakes and seems to have had a base of liquid petrolatum, in which there were small quantities of oils of turpentine, eucalyptus and menthol, with camphor.

Clearo.—C. E. McCuistion of Dallas, Texas, exploited this mixture of alcohol, water and vegetable extractives, claiming that it was an herb medicine that had originally been used by the Choctaw Indians. Clearo was declared a fraud by the government and debarred from the mails.

Duket's Consumption Cure.—Peter P. Duket, M.D., Chicago, claimed to have developed a "serum" that would cure tuberculosis. Duket probably would have done little harm had not his scheme been financed by a well-known politician and sponsored for a while by a medical college. The American Medical Association exposed the Duket "cure" as a worthless fake and published details showing that practically all of the patients who were alleged to have been cured were dead. Duket's nostrum was not a serum but a solution of guaiacol, salicylic acid and baking soda in glycerin.

Consumption
Getting Stronger Every Day.
FRANK WACHTER.
Improves Greatly After Using Treatment Only 15 Days.
OTTO BRUCE.
Improving in Every Way.
Gains 17 Pounds After Every One Gave Her Up.
MISS IDA SCHULTZ.

The consumptive is peculiarly susceptible to the temptation of giving testimonials. Here are reproduced a few testimonials given by consumptives who later succumbed to the disease. Some of the testimonials above were being used one and two years after the poor victims who gave them were dead.

Eckman's Alterative.—The Eckman Manufacturing Company of Philadelphia put out this nostrum, which was said to be the discovery of T. T. Eckman, a veterinarian. The stuff, when analyzed in the chemical laboratory of the American Medical Association, was found to be

a solution of chloride of calcium (lime) in alcohol and water, flavored with cloves. The federal authorities declared that the claim that Eckman's Alterative was a cure for consumption was fraudulent, and the company was found guilty. The Eckman concern later put out Eckman's Calcerbs for "weak lungs"; these were tablets containing calcium carbonate (chalk) and a laxative drug, flavored with sugar and cloves.

Glass's Inhalant.—This product of Thomas F. Glass of California was found to contain pine tar, turpentine and chloroform, with traces of menthol. Some years ago Glass's certificate to practice medicine in California was revoked.

Heilol-Hælan.—Three brothers, John, Harry and Eugene Gurley, and their brother-in-law, Robert T. Nash, under the trade name General Remedies Company of Denver, Colo., sold a fraudulent consumption cure, first under the name Hælan and, later, under the name Heilol. The stuff contained 8 per cent alcohol and certain vegetable extractives. The postal authorities declared the thing a fraud and debarred it from the mails.

Hill's Consumption Cure.—J. Lawrence Hill exploited this from Jackson, Mich. Investigation of some of Hill's testimonials showed that the persons who had given them were dead. Hill's treatment consisted of gelatin capsules, two kinds of tablets, an ointment, a liquid and a small device for inhaling purposes. When analyzed in the chemical laboratory of the American Medical Association the capsules were found to contain guaiacol in some bland oil, together with a small pill of iron, quinine and strychnine. One of the two sets of tablets was found to be nothing but milk sugar; the other was found to be an ordinary laxative tablet, apparently aloes; the ointment had a little oil of wintergreen, while the liquid for inhaling was a mixture of oils of sassafras, peppermint and eucalyptus.

Lower's Germen Prescription.—The Lower Pharmacy of Marion, Ohio, exploited this nostrum, which was said to be the discovery of C. A. Lower. According to Lower, it took from fifteen to thirty bottles of his nostrum—at $2 a bottle—to "remove the tuberculosis poison." The stuff contained peppermint, horehound, golden seal, squills, menthol, cayenne pepper and some other products, in alcohol and water. When analyzed in the chemical laboratory of the American Medical Association it was found that the only drug present in any therapeutic amount was menthol.

Lung Germine.—This is another mail-order fake from Jackson, Mich. Investigation of testimonials for Lung Germine showed that the persons that gave them were either dead or had never had consumption. When analyzed in the chemical laboratory of the American Medical Association, the nostrum was found to be essentially sulphuric acid in fortified wine. The federal authorities charged that the claim that Lung Germine would cure consumption was false and fraudulent; the company pleaded guilty and was fined.

Photographic reproduction of Piso labels before and after the passage of the federal Food and Drugs Act, which prohibits false and fraudulent claims on and in the trade packages.

Nature's Creation.—This nostrum was said to have been brought into existence by one H. W. Campbell and a Mrs. J. M. Reynolds. The formula was Mrs. Reynolds', whom Campbell is said to have discovered telling fortunes in a Chicago basement. Campbell and Reynolds formed a company, first known as the H. W. Campbell Company of Chicago and, later, as Nature's Creation Company of Columbus, Ohio. From Chicago the stuff was exploited as a cure for syphilis; from Columbus, it was a cure for consumption. An investigation of the cases of persons who had taken Nature's Creation disclosed that scores of them were dead, as were also a number of those who wrote testimonials and whose pictures were published by the Nature's Creation Company. When analyzed in the chemical laboratory of the American Medical Association, the preparation was found to be a solution of potassium iodide in alcohol and water, with some vegetable extractives and flavoring matter. Later, Nature's Creation was exploited by another quack, Ralph L. Marer, and in December, 1925, the postal authorities debarred Nature's Creation from the mails.

Oxidaze, Oleozone, Hydrocine.—Each of these three names was applied at different times to tablets of sugar, containing minute quantities of volatile oil, sold as an alleged cure for consumption. The product is said to have originated with C. E. Getsinger and S. Roberts, M.D., who, with others, incorporated what was known as the Hydrocine Company. Later, Hydrocine went out of existence and from its ashes arose Oxidaze and Oleozone, both having essentially the same composition as the original Hydrocine.

Pul-Bro-Tu.—George Kirkpatrick, a quack of Portland, Ore., exploited this humbug. The chemists of the American Medical Association found Pul-Bro-Tu to be essentially a weak solution of potassium iodide and an arsenic compound. The Oregon Public Health League investigated 124 cases of those who had been treated with Pul-Bro-Tu. They found eighty-nine of the victims dead, twenty-six as bad as ever, and none cured.

Pulmonol.—A. V. Payne, M.D., quack, exploited Pulmonol under the trade name Pulmonol Chemical Company, New York City. Investigation of some of the testimonials published by Payne brought out the fact that persons who had given them were dead and had died of consumption. In one case, Payne continued to publish the testimonial of a woman even after her death and over the protest of the dead woman's daughter. Pulmonol was analyzed, both by the chemists of the American Medical Association and by the federal chemists. It was found to be a solution of benzoate of soda, a guaiacol salt and a little strychnine in glycerin and water, colored with a coal tar dye. The federal authorities declared the stuff a fraud.

Sacco (Stevens' Consumption Cure).—Charles H. Stevens for years exploited the consumptives of the United States, Canada, England and South Africa. The British Medical Association analyzed the product and showed it to contain no active drugs except alcohol (of which there was more than 23 per cent) and glycerin (of which there was less than 2 per cent). Stevens pretended that the stuff contained some African herb, which no one ever heard of but Stevens. The product has also been sold under the name, "U. C. Extract."

Sanosin-Sartolin.—One Robert Schneider of Berlin, the inventor of Sanosin, brought the nostrum over to this country, where it was sold as Sartolin. It consisted of powdered eucalyptus leaves, together with some oil of eucalyptus, mixed with sulphur and charcoal and was used by placing the mixture on a heated slab. The tuberculous victim was supposed to stay in a room tightly closed, so as to breathe in the fumes of this evil-smelling mixture.

Savrite.—This fake, to the disgrace of the United States patent office, was granted a patent in 1921, the patent being issued to one Evaghoras Serghison. The stuff was a mixture of poppy petals, nettles, bitter almonds and squill root in olive oil.

Tuberco.—This preparation, sold by the Tuberco Laboratories of Atlanta, Ga., when analyzed in the chemical laboratory of the American Medical Association was found to be practically nothing but gum turpentine put up in capsules and sold at an outrageous price.

Tuberclecide.—This fraud was exploited by one Charles F. Aycock from Los Angeles, Calif. When analyzed in the chemical laboratory of the American Medical Association, Tuberclecide was found to be essentially a solution of creosote or guaiacol, in olive oil. Aycock had no medical training and his life history was one of fraud and deceit. In January, 1928, the federal authorities declared Tuberclecide a fraud and debarred Aycock and his "cure" from the United States mails. Shortly thereafter, the same swindle was being exploited from Denver with disabled veterans of the World War as victims.

Tuberculene.—Mrs. G. J. Murrman of Danville, Ill., doing business as the Tuberculene Manufacturing Company, sold a fraudulent consumption cure under the claim that it "positively destroys tuberculosis germs." Tuberculene was a mixture of creosote, rock-candy syrup, glycerin and syrup of wild cherry. The federal authorities debarred it from the United States mails.

Tuberculozyne.—Derk P. Yonkerman, a veterinary quack of Kalamazoo, Mich., sold his fraudulent mixture both in this country and in the British Isles. His nostrum consisted of two liquids, one of which contained potassium bromide in glycerin and water, with a small amount of red pepper, and the other glycerin, oil of almond, and burnt sugar.

Whittington's Specific.—This was sold by Dr. William Whittington of Dinuba, Calif. When analyzed in the chemical laboratory of the American Medical Association, the preparation was found to be a flavored syrup containing more than 7 per cent of alcohol, but having no other therapeutic ingredients. In May, 1924, shortly after the death of Whittington, the company that exploited this fraud was debarred from the mails.

Wright Tuberculosis Treatment.—This was sold by the so-called Carrie Wright T. B. Foundation at Corinth, Miss. When analyzed by the chemists of the American Medical Association, Mrs. Wright's alleged cure was found to be a mixture of water, glycerin and burnt sugar.

H. Armstrong Roberts

Your Baby's Eyes

By Thomas Hall Shastid

ALL babies are born blind. Do not worry, therefore, should you chance to note that your new-born child does not see. Of course he doesn't.

Chiefly because the new-born baby does not see, the two eyes will not work well together. Both eyes may look outward or both too strongly inward at the same time. Occasionally one eye will look up and the other down at the same time. This is perfectly natural and is nothing to cause alarm. The infant is cross-eyed as a matter of course.

At 3 Months, Baby Eyes Are Straight

But if, after the age of 3 months, the baby's eyes still seem crossed, or "walled," you may be certain that there is something seriously wrong with them.

Another thing that should cause no alarm is the smallness of the baby's pupils. All babies' eyes have small pupils. Not until a child is about 6 years old do the pupils reach their largest size. Then they slowly diminish until, in old age, they are small again.

In case you wanted a black-eyed or a brown-eyed baby, but have one that is blue eyed, again do not worry. All young babies' eyes are deep blue or gray blue, sometimes with little splotches of brown or yellow mixed with the blue. These colors may be only temporary. The pigment that produces the color will later be absorbed, while the permanent hue is putting in its gradual appearance. The new-born child's hair, too, is always temporary hair, as his first teeth will be temporary teeth.

Don't fret if your baby sheds no tears when he cries, for the first few weeks after birth. The very young, like the very old, are apt to cry "dry"—no matter how they vote.

Precautions to Take

All these are things not to worry about. On the contrary, here are a few matters of the greatest concern to you, to baby, and the world. Keep your baby's eyes unexposed to dust, smoke, bright light and sharp objects. Also, at the first sign of redness, swelling or discharge, have them seen to promptly and expertly.

TUBERCULOUS PHYSICIANS

and their Contributions

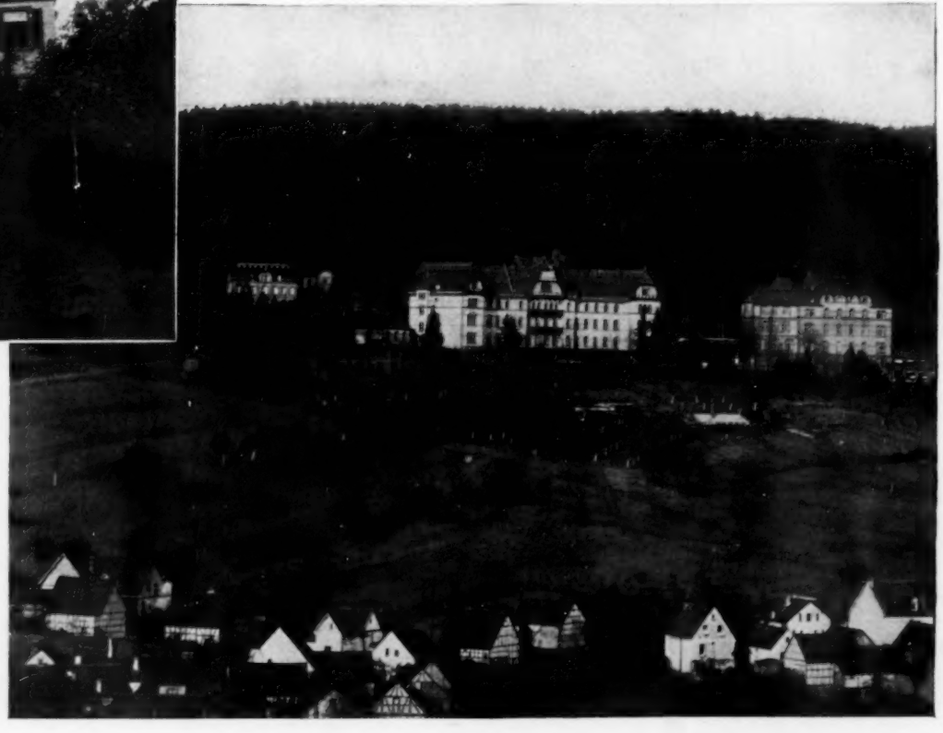
By J. A. Myers

PETER DETTWEILER, the son of a tenant farmer, was born in Germany in 1837. Before graduating in medicine he fell ill with pulmonary tuberculosis, which manifested itself by hemorrhages. After a time his health improved so that he became a full-fledged physician, but his tuberculosis persisted. He went to Gorbersdorf to be treated by Brehmer in the first successful sanatorium in the world. When he entered this institution, in 1868, he was at a great advantage in being both a physician and a patient. He made numerous observations on his own case and on other cases. When his health would permit it, in 1870, he was made second physician in the sanatorium. This gave him greater opportunities to study the effects of treatment on tuberculous patients.

It was not long until Dettweiler began to differ from Brehmer concerning the value of certain factors in treatment. For example, he believed that the tuberculous patient needs much more rest than Brehmer was giving his patients; he believed that ample food should be given but that excessive feeding is bad; he believed that in no place in the world is one immune to tuberculosis and that climate and elevation do not play essential rôles in treatment; he also believed that rest during the day and night should be in the open air.

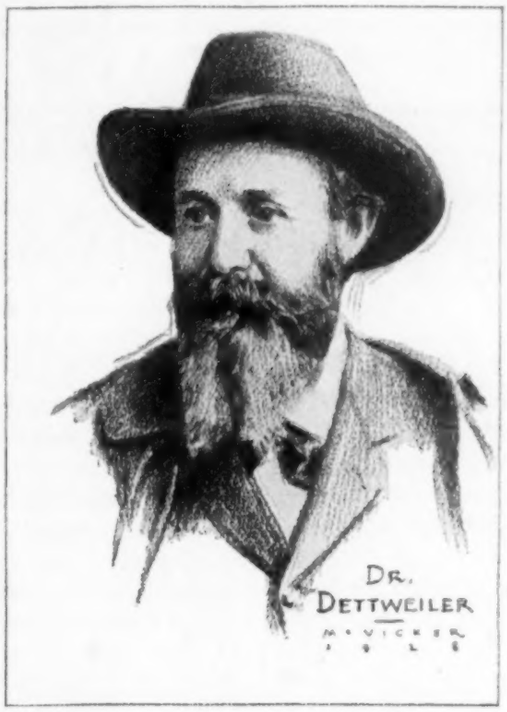
These differences of opinion led Dettweiler to leave Brehmer's sanatorium in 1875. A year later Dettweiler was made director of a sanatorium for the wealthy people at Falkenstein. He also established the first sanatorium for the poorer classes in the same city. In these two institutions he had opportunities to put into practice the methods that seemed best to him and in them he proved satisfactorily that much rest is desirable in the treatment of clinical tuberculosis and that this rest may be had in the open air.

Instead of having patients walk and ride in the open air, Dettweiler constructed buildings



Above is Dettweiler's former home at Sanatorice, Germany. To the right is the sanatorium that Dettweiler started in Ruppertshain in Taunus.

so they might have fresh air while lying in bed. He began with some very sick patients whose continual confinement to bed in their rooms prevented them from making any progress in getting well. At first the patients in their own beds were moved out to open wooden porches for a few hours at a time. As soon as beneficial results were evident in the majority of cases, the wooden porch was torn down and sheltered galleries and several large garden pavilions, which were protected from the wind, were erected. In these sheltered galleries and pavilions were bamboo lounging chairs in which patients passed the entire day except when at meals or walking.



Instead of forced feeding, Dettweiler used moderate amounts of good, wholesome food. He introduced another extremely important factor in the successful treatment of the tuberculous—the education and medical supervision of the patient.

Dettweiler believed that exercise should be begun in a cautious manner, delicate patients not being allowed to walk more than fifteen or twenty minutes at a time. He firmly believed that the treatment of tuberculosis depends not on the climate alone but on the way patients make use of their surroundings. He did believe, however, that a comparatively high altitude was necessary, a belief shared by others of his time.

Thus Dettweiler, a sufferer from tuberculosis, took up the treatment that Brehmer had established and through his own personal experience with the disease was able to make many valuable contributions to the successful method of treating it. Indeed not much improvement has been made in the general dietetic and hygienic treatment of tuberculosis since Dettweiler's time. Perhaps he overemphasized the use of open air, but he did not possess the scientific facts regarding air that we now possess. Perhaps, too, the overemphasis was necessary at that time in order successfully to combat the existing prejudice against open air.

To Brehmer and Dettweiler must be given the everlasting credit for establishing the successful general methods of treating tuberculosis; and the works that they began and the spirit that they manifested are being carried out and revealed by thousands of workers scattered throughout the world. Through them inestimable suffering and sorrow have been prevented and uncounted years have been added to the lives of the members of the human family.

Looking Ahead to February

IN THE February issue of HYGEIA, you will want to read some of the following articles by health authorities:

WHEN WINTER COMES
By Charles R. Sheard, M.D.

HOW IS YOUR HEART?
By Louis M. Warfield, M.D.

ADOPTING A BABY
By A. Levinson, M.D.

KING LAZYBONES, a health play
By Alice B. Bacon

Other timely articles for adult and child readers are scheduled for the February issue, with its colorful valentine cover.

HYGEIA
THE HEALTH MAGAZINE
Published by the American Medical Association
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Plain Facts about Health and Disease

HYGEIA AND THE NEW YEAR

HYGEIA finds itself confronting the New Year without any new leaves to turn over. What a satisfaction to be able to look backward with complacency on the past! During the year that has gone HYGEIA has promoted no unestablished fads; it has sold its advertising pages only to clean and scientific advertising; it has tried to record faithfully the progress in medicine and in health promotion; it has attacked cultism, antivaccinationists, antivivisectionists and all the other antis who because of personal prejudice refuse to see the truth and who oppose the common good.

During the year that has gone HYGEIA has answered thousands of letters from readers who were perplexed about health subjects; only a modest percentage of these answers have appeared in its pages, the majority being sent direct through the bureau of health and public instruction of the American Medical Association.

To the school teachers and educators of our country HYGEIA has made a special appeal knowing that in their hands rest the health and the minds of future Americans. Today health is recognized as one of the leading subjects in the school curriculum.

Thus HYGEIA has endeavored to meet the purposes for which it was established. Readers have responded with indications of their satisfaction. The only ascertainable cause for any despondency is the fact that the circulation of the periodical has not yet reached one hundred thousand when it should be at least one-half million to serve the field that it should serve and to exert the influence that comes with greater circulation. Such an accomplishment can come only by the enthusiastic help of the readers who are already finding that the periodical means far more to them than the extent of its subscription price.

HOW MUCH IRRADIATION?

MANY scientists who have studied the effects of the sun's rays on the human body predict a future in which the sunlight that man lost when he moved indoors will have been brought into the home, when it will glow from every artificial light, when white men will have become a brown-skinned race with stable nervous systems and strong bones.

Men are much given to predictions on the basis of only a little evidence. Actually, knowledge of irradiation is in an extremely early infancy. The adequate dosage of ultraviolet rays has not been established for many conditions of illness and certainly not for all conditions of health. Fortunately the human body is builded with numerous factors of safety and there seems to be a wide range of safety between what may be called a safe dose of ultraviolet rays for the prevention of rickets and the promotion of health, and the overdose which, it seems, may result seriously for the human body.

One of the chief functions of ultraviolet rays is to produce vitamin D by their action on what is called the precursor of vitamin D—ergosterol. Investigators found that this substance could be irradiated and vitamin D developed in a highly concentrated form. They found that the effects of irradiation could be secured by the eating of foods that had been irradiated. Hence the human being may obtain his share of this substance directly from the sun itself when the sun's rays are able to penetrate the fog and smoke. He may provide his windows with glass that will permit ultraviolet rays to pass whereas ordinary window glass does not permit such passage, but he must be sure that the ultraviolet rays actually reach the glass in considerable quantity from the sun. In most large cities the rays get through only for a few hours in the middle of the day in the summer months.

Man may take liberal quantities of cod liver oil, known as "bottled sunshine" because it is the richest substance known as a source of vitamin D. From this he also obtains vitamin A. Egg yolks contain much vitamin D particularly when the eggs come from chickens that have had sunlight or ultraviolet rays from artificial sources. One firm has prepared tablets that represent cod liver oil in concentrated form and thus present the vitamin D qualities without the taste and odor heretofore inseparable from the oil.

Certain concentrates have been prepared by the direct irradiation of ergosterol but these are not generally available because their potency is hundreds of times that of cod liver oil and no one yet knows the safe dose or the dangers. Indeed European investigators have already found serious increases in the amount of calcium in the blood associated with overdoses of these substances. As a result of the increased calcium, stones have formed in the kidneys and calcification has taken place in the walls of the heart and the large blood vessels.

Already foods such as ice cream, dried milk, cereals and even yeast are being considered as suitable for irradiation. Here enters not only the question of dangerous overdosage but the possibility of inadequate dosage through reliance on inefficient sources of the important substances. It has been urged that several pounds of the irradiated cereal would have to be eaten by the infant to equal a teaspoonful of cod liver oil in potency. Until something definite is known on these points the public will do well to rely on established methods.

Not only are there available sources of artificial ultraviolet rays of great potency such as the carbon arcs and mercury vapor quartz devices but already some devices have been planned with lower intensities for home use. It is impossible to say accurately just what is a suitable dose for all persons with any one of these apparatuses.

Hinrichs, at the University of Chicago, has demonstrated that small doses of ultraviolet rays stimulate and that large doses of the rays depress. Perhaps a short exposure to an apparatus of high potency is equivalent to a long exposure with one of low potency but that has not been shown. The tendency after depression is to swing back to the normal and, like a pendulum, beyond the normal. The tendency after stimulation is to swing back toward the normal and often to inhibition or depression. Investigations were made on living yeasts, on growing cells and on various lower organisms to establish these facts. Experiments on mice have shown that repeated exposure of the skin to ultraviolet light for many months may result in overgrowth of the cells of the skin.

The ultraviolet rays are not a panacea for all disturbances. They do not rejuvenate. They are not the elixir of youth that Ponce de Leon sought or the one the mythical Faust secured from Mephistopheles. They are a potent force derived for medicine by patient research, but a dangerous force when used carelessly.

CLOTHES AND THE MAN

FROM the hygienic point of view, clothing serves various useful purposes. At the same time, it has been attacked by some hygienists for its interference with certain living processes.

It is obvious to any one that clothing is important as a protector against cold and inclement weather, that it keeps off excessive sunlight, and that it is largely concerned with the radiation of heat from the body. Nevertheless, sometimes, or to some extent, the reverse of these activities is desirable for the human being. Too much clothing retains too much heat, prevents radiation from the surface, and prevents access of the ultraviolet rays to the skin.

A half dozen or more health cults of one type or another have emphasized clothing as the chief factor in their reforms. The name of Miss Amelia Bloomer has become famed in American history as that of a pioneer in woman's dress whose name is now associated with certain garments; Dr. Mary Walker was a sensation toward the end of the nineteenth century when she insisted not only on the right to men's clothes, but also to the ballot. In a recent consideration of clothing called "Lady Godiva: The Future of Nakedness," Mr. John Langdon-Davies considers cleverly the gradual change in point of view toward clothes and toward modesty. He is apparently a firm believer in the cult of nakedness, not only for health, but even for esthetics. He recognizes that the covering of the body from the point of view of modesty depends entirely on the customs of the nation or tribe with which one may be concerned. Thus, certain oriental groups are far more ashamed of the unveiling of the face than exposure of any other portion of the body.

Since Rollier in Switzerland proved the value of sunlight in tuberculosis of the joints, cults of nakedness have sprung up in various parts of the world. Indeed, in some foreign countries, notably in Germany and France, the unveiling at the seaside has been startling, and no doubt

to the advantage of the health of those concerned. The psychologists argue that the purpose of clothing is not to conceal and to prevent sex attraction, but actually to stimulate it. Thus the wearing of a uniform shapeless black garment by women serves to lower the interest of men. Mr. Langdon-Davies therefore suggests as a means of hastening the time when the human being will be less conscious of the bared body, the wearing of paper garments of a uniform style, which would obviously be so hideous that nudity would be a welcome change.

Mr. Langdon-Davies' discussion of the subject is witty and informative. He discusses the matter not from the point of view of a propagandist, but as one who would enlighten his readers and who sees the fallacy even in his proposed reform. There is, however, enough truth in his plea for clothing reform to arouse significant thought. Thus he says: "The fact that we value people by their clothes, judge them by their clothes, fall in love with them by their clothes, means that all sorts of unfortunate results might happen if our standard of judgment, the cynosure of our eye, suddenly disappeared."

On the question of clothing HYGEIA is not ready as yet to take a definite stand. Certainly, there is room for believing with Leonard Hill, the noted physiologist, that much of modern dress is unhygienic and unsalutary. The stiff collar and constricted throat of men are among the greatest anomalies in clothing that have ever been developed; yet repeated attempts to introduce the so-called sport shirt or even the soft collar as a standard for wear have failed to meet general approval. The dissimilarity between the weight and amplitude of the garments of men and women brings about problems in heating and ventilation that are apparently impossible of satisfactory solution. The subject is one to which hygienists and physiologists, as well as the guardians of fashion, may well devote considerable attention.

VALUABLE PROPERTIES

THE eminent statistician Dr. Louis Dublin estimates the potential value of a man 32 years of age earning $5,000 a year as approximately $50,000. The material assets of the United States represented by property, buildings and similar material are estimated as approximately three hundred twenty-one billions of dollars. The human assets represented by the worth to the community of the individuals in it are estimated in the United States at one trillion, five hundred billions of dollars. The sum staggers human comprehension.

If any of our material properties become slightly damaged or show signs of wear and tear, we promptly arrange for rehabilitation in order to avoid loss, but human beings temporize with damage to the human machine. Early care is of the utmost importance in preventing greater damage not only to the part concerned but also to the entire organism. Indeed, the relationship between the parts of the human body, maintained by the circulating blood stream, is a much more intimate relationship than exists in any machine.

The 1928 Index

AN INDEX and a title page for the 1928 volume of HYGEIA *has been prepared and printed and will be sent to any subscriber on request. Address The Editor,* HYGEIA, *535 North Dearborn Street, Chicago.*

What the Big *Snow Storm* Did For *James*

By Blanche J. Dearborn

James always stumbled and stammered in his reading until every hand in the class was waving. Miss Brant felt sorry for the big, awkward boy.

EVERY time big, awkward, 10 year old James came to class with boys and girls only 7 to 8 Miss Brant felt sorry for him. She felt sorrier yet when it came James' turn to read. He always stumbled and stammered along until a little snicker ran through the class and every hand was waving wildly. Then a dusky red would steal over his face from the tip of his ears to the end of his nose, and he would sit down with a muttered "I can't read."

Miss Brant had many a talk with him. She told him he must say "I can" and then he would be able to do things, but James didn't change. Everything from morning till night was "I can't" and he continued to be the stupidest boy in the Bailey school.

One day Miss Brant went to James' home. She found he did not live with his father and mother, but was a "state boy" and was boarded out at Mrs. Frost's.

Mrs. Frost was a little woman who moved as easily and quickly as a well oiled machine. As soon as Miss Brant saw her sweeping the snow from the porch, she knew Mrs. Frost was an exceedingly capable person. Every motion she made was timed just right to give the best results. Miss Brant thought immediately of the contrast between her and big, shambling James, who never seemed to know where to put his hands, and she was sorrier than before.

"Well, well," said Mrs. Frost, straightening up after a last vigorous flirt of the broom, "so you are James' new teacher? Well, I can tell you right now I am sorry for any one who has to try to teach that boy anything. He's the stupidest child I ever saw. Why, even my 6 year old Sally knows more than he does."

Miss Brant tried again and again to put in a good word for James, but Mrs. Frost ran on like a talking machine that was wound up and all the time she said nothing except how slow and clumsy James was. At last Mrs. Frost stopped a second to draw a long breath and Miss Brant took the opportunity to say good-by.

"Poor James," said Miss Brant, as she walked slowly home. "No wonder he thinks he doesn't know anything when he hears how stupid he is all day at home." After that Miss Brant was very patient with James, although she never let a day go by without saying, "You can read if you only will think so."

One Saturday Miss Brant and her class started for the woods. Every week they took suet and seeds to feed the birds that had courage to brave a northern winter. What a happy morning the children had in the woods! Miss Brant, who had always lived in the city before, allowed the children on this morning to wander farther than she had intended.

It was James who called her attention to the thick massing of dark gray clouds and a chill that had crept into the air. Miss Brant immedi-

ately called the children, but before she could get them all together the snow was beginning to fall thick and fast.

"A blizzard is coming on," said James, "and it's going to be hard work for you to get the children home."

They had gone but a few steps before Miss Brant realized James had spoken truly. The wind swept through the woods, driving the cutting snow into their faces, and the air was so full of falling flakes they could see but a few feet ahead of them.

Miss Brant did her best but she had never been out in such a storm before and she was soon completely bewildered. She stood still, looking helplessly around, surrounded by thirty frightened children. She called James to her and whispered so that the other children could not hear, "I don't know where to go. Can you guide us?"

"I can't—," began James as usual, and then through the blinding snow he caught a glimpse of Miss Brant's face, tense and white with fear. Instantly his shoulders straightened. "Sure I can," he answered sturdily, "We'll get the children home all right. Don't you worry."

James took the lead and Miss Brant brought up the rear, making sure that no straggler was left behind. After a particularly spiteful gust James gasped, "I know an empty house down the road a piece; I think I can find it. We had better stay there and not try to go home. By and by the men will come looking for us."

"All right," said Miss Brant. "We will follow you."

Sure enough, they had gone no great distance before a big gray building loomed up ahead and Miss Brant's heart beat with thankfulness. All the way James had kept tight hold of Sally's hand, but now he dropped it for a minute to try to find an entrance into the house. The doors were bolted from the inside, but at last he found a window he could push up and soon they were inside. What a relief it was to get out of the whirling blizzard!

James kept tight hold of Sally's hand, while he led the pupils through the blinding snowstorm.

"Now we will count noses," said Miss Brant. Yes, thirty children, all of Room 3.

"You haven't allowed for Sally," exclaimed James. "There ought to be thirty-one." Sure enough Miss Brant had forgotten to count little Sally.

"I must find her," said James.

"You'll be lost in the storm yourself," protested Miss Brant, but James repeated, "I must find her," and pushed open the door. The wind was so strong that two of the children had to help Miss Brant close it and the snow was blown half way across the kitchen floor.

Twice James returned to get his breath and rest, each time alone, but always he assured anxious Miss Brant, "Oh, I'll find her; don't you worry."

"Sally, Sally," he called again and again but the wind blew his words back to him. He was nearly hopeless when he tumbled against a soft bundle at the foot of a tree.

"Sally, Sally," he called but he received only a faint answer. Hastily he raised her in his arms and staggered toward the house. The snow was falling so fast that Miss Brant heard his step before she saw him and he almost fell into the room as she pulled open the door.

Poor Sally was drowsy with the cold and most of the children were whimpering.

"We ought to have a fire," said Miss Brant, "but I don't suppose any one has a match." No one had, and a search of the shelves and cupboard was without results.

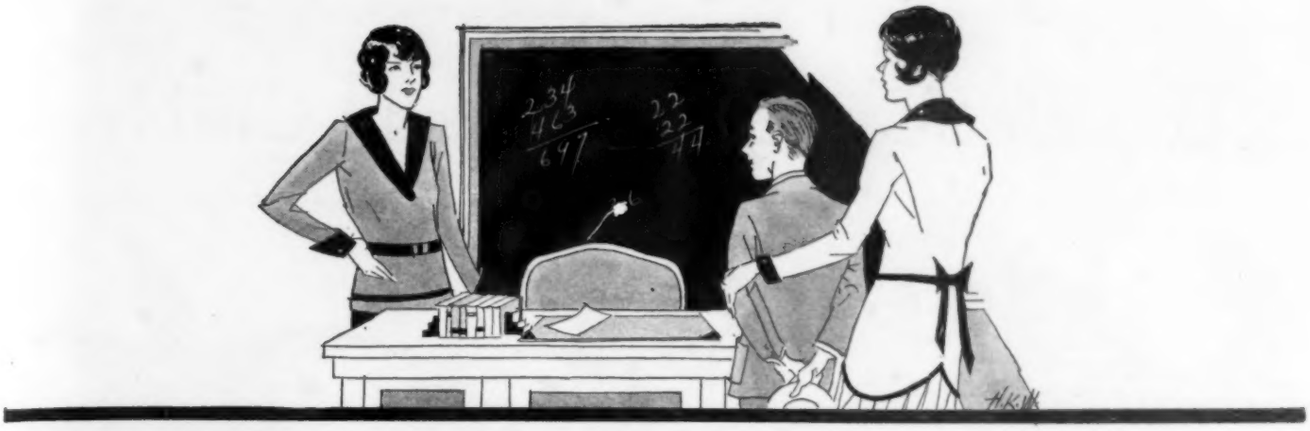
James went to the woodshed, where there was a good supply of wood stacked. There he found a flat piece and a little sharp stick. Then he took a string from his pocket.

"My father showed me how to do this when I was a little fellow," he said.

How he did make that little stick fly! Round and round it went. Miss Brant had found an old newspaper and stood by waiting for the first sign of a spark. It was slow, tedious work to the watchers huddled in the gloom and cold of the old kitchen, but James kept steadily at it.

At last a tiny spark! Then another! Miss Brant held out the paper and it caught. When it had blazed sufficiently she thrust it into the kindling in the stove. Never before had these children so appreciated a fire. They stood around the stove and laughed in comfort. Miss Brant and James rubbed Sally's feet and hands and soon she was warm, but she began to whimper, "It's dark. I don't like the dark."

James jumped to his feet. On a little shelf he found a lamp full of oil. A stick thrust in the



"Oh, he's the bright boy that saved you and your children last December, isn't he?" Miss Eagen asked. "I shall be glad to have him in my room."

fire made a match and in a second the little flame was sending its cheerful light into the darkest corner.

"Now we are all fixed," said James with satisfaction. "The men will come looking for us before long."

"I am hungry," said Sally. "And so am I," said several of the others.

"Never mind," laughed James; "you won't starve for an hour or two."

"Tell us a story, Miss Brant," begged the children, and she began the most exciting one she could remember. In the middle of it, there was the sound of bells, and in another minute a big sled drawn by two large horses stood before the door. Soon the children, covered with many blankets, were being driven safely home.

James was the hero of the day. Every one said they would all have been lost in the snow if it had not been for James. Mr. and Mrs. Frost could not do enough for him. They told him over and over he had shown more common sense than many a man would have shown.

The next Monday when school began every child was in his place. Miss Brant looked at them all with a little shudder at the thought of what might have been.

When James' reading class was called, Miss Brant noticed he seemed changed. He was no longer slouchy and diffident, but sat straight and tall. When his turn came to read no one giggled as usual behind his book but every one looked at him with an admiring eye. James stood up quickly and without a stumble or pause he read the entire page. Miss Brant was so surprised she almost dropped her book, but the children seemed to take it for granted that the hero of Saturday would never be downed by a mere reading lesson.

That night James stayed after school to talk with Miss Brant. "How did you ever manage to read so well?" she asked. "Had you been studying that page?"

"No'm," said James, "but all the time before reading lesson I kept saying to myself, 'I can, I can' just as you told me to, and then when I stood up I could see all the children expected me to read and I just did it. It wasn't a bit hard."

"What did I tell you?" laughed Miss Brant.

"And another thing," continued James turning a little red, "I feel silly back in this class with these little children. Do you think I could skip a grade maybe if I tried? Mrs. Frost says she will help me."

"Bless my heart," said Miss Brant. "Skip one grade? You can skip two if you just make up your mind to it."

"I can! I can! I can!" said James with a grin.

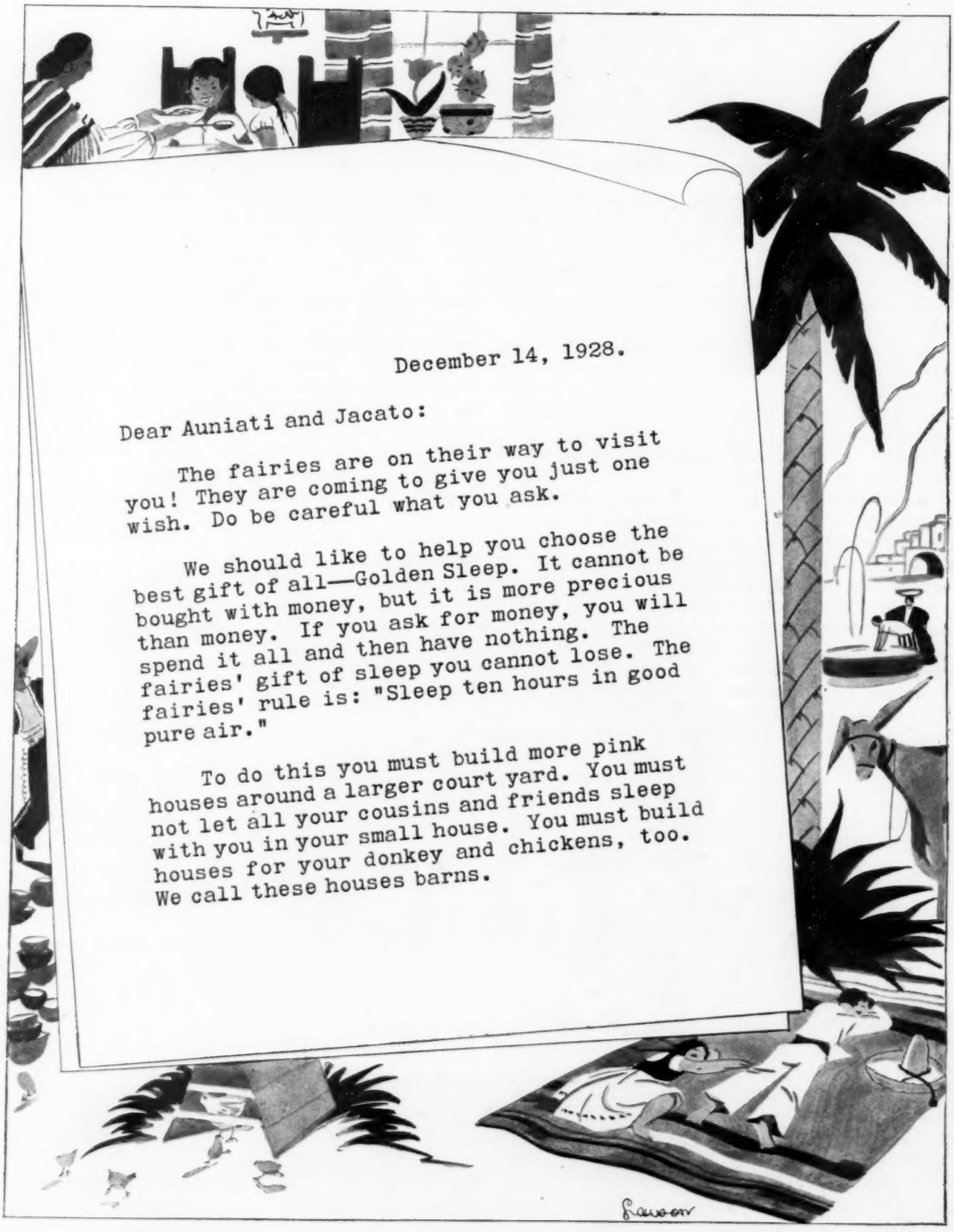
"That's the way to talk," said Miss Brant.

In February Miss Brant went to Miss Eagen of grade 3. She said, "I am sending you James Hart. The work in my room is far too easy for him, and if my guess comes true he won't be very long with you."

"Oh, he's the bright boy that saved you and your children last December, isn't he?" asked Miss Eagen. "I shall be glad to have him."

"Yes," said Miss Brant. "He's a bright boy."

A Health Secret for Mexican Children



December 14, 1928.

Dear Auniati and Jacato:

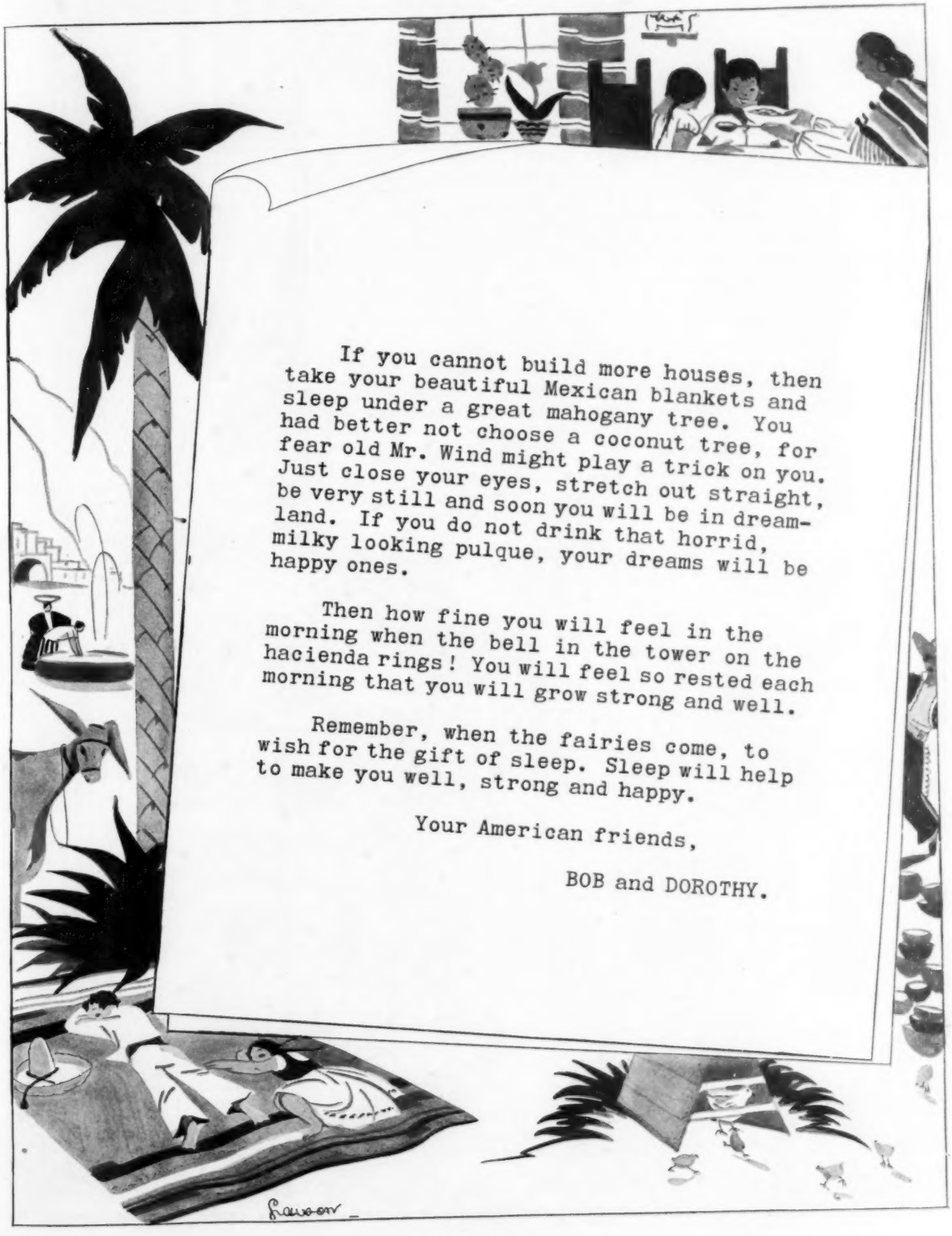
The fairies are on their way to visit you! They are coming to give you just one wish. Do be careful what you ask.

We should like to help you choose the best gift of all—Golden Sleep. It cannot be bought with money, but it is more precious than money. If you ask for money, you will spend it all and then have nothing. The fairies' gift of sleep you cannot lose. The fairies' rule is: "Sleep ten hours in good pure air."

To do this you must build more pink houses around a larger court yard. You must not let all your cousins and friends sleep with you in your small house. You must build houses for your donkey and chickens, too. We call these houses barns.

from Their American Friends

By
Katharine Ranger



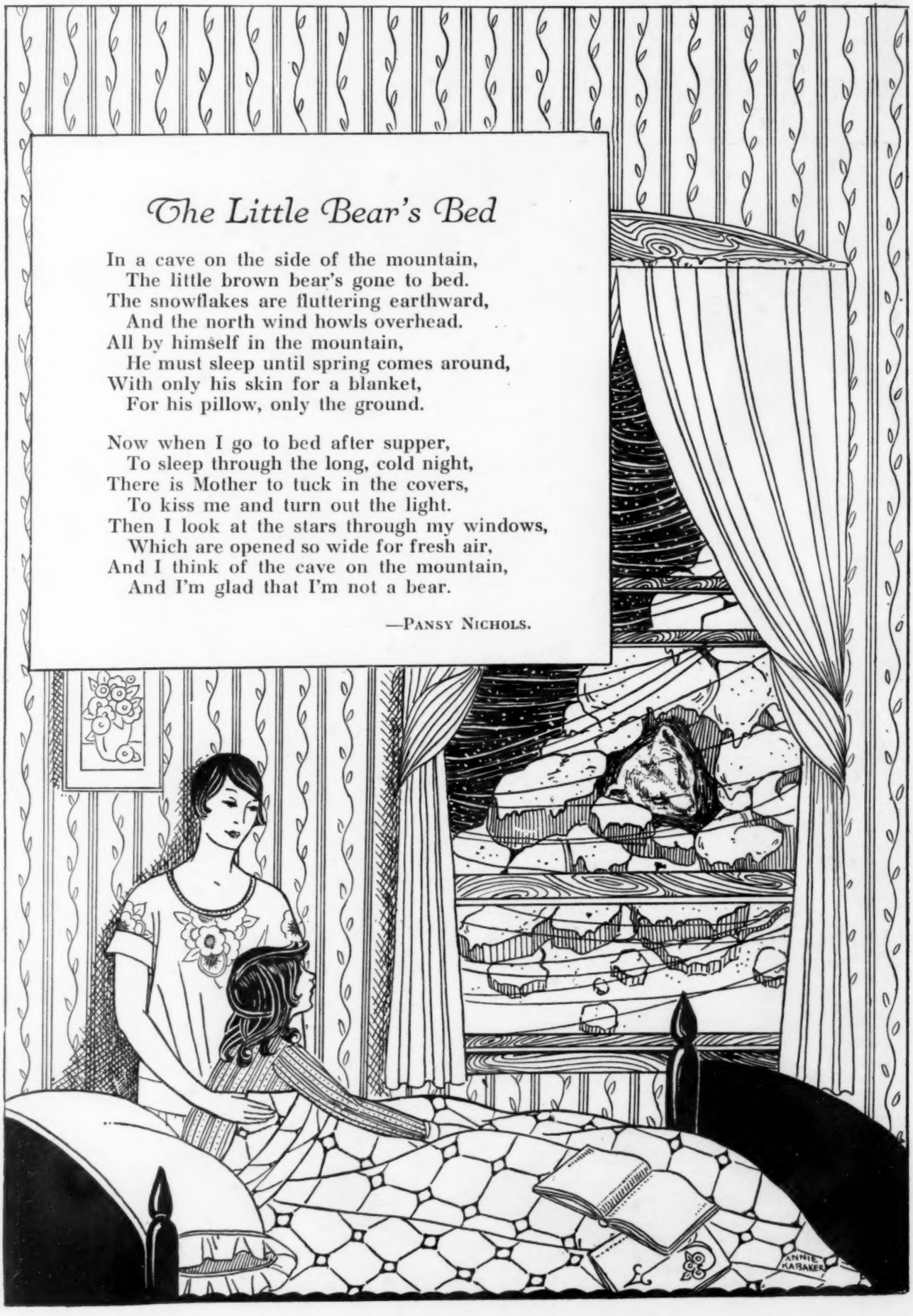
If you cannot build more houses, then take your beautiful Mexican blankets and sleep under a great mahogany tree. You had better not choose a coconut tree, for fear old Mr. Wind might play a trick on you. Just close your eyes, stretch out straight, be very still and soon you will be in dream-land. If you do not drink that horrid, milky looking pulque, your dreams will be happy ones.

Then how fine you will feel in the morning when the bell in the tower on the hacienda rings! You will feel so rested each morning that you will grow strong and well.

Remember, when the fairies come, to wish for the gift of sleep. Sleep will help to make you well, strong and happy.

Your American friends,

BOB and DOROTHY.



The Little Bear's Bed

In a cave on the side of the mountain,
The little brown bear's gone to bed.
The snowflakes are fluttering earthward,
And the north wind howls overhead.
All by himself in the mountain,
He must sleep until spring comes around,
With only his skin for a blanket,
For his pillow, only the ground.

Now when I go to bed after supper,
To sleep through the long, cold night,
There is Mother to tuck in the covers,
To kiss me and turn out the light.
Then I look at the stars through my windows,
Which are opened so wide for fresh air,
And I think of the cave on the mountain,
And I'm glad that I'm not a bear.

—Pansy Nichols.

HEALTH *and the* SCHOOL

Edited by

J. Mace Andress

67 Clyde Street, Newtonville, Mass.

CANDY—A School Health Problem

YOUNG America has a sweet tooth. At noon and after school children frequent the corner store and buy candy. At parties, entertainments and even at home candy is often supplied generously. Health educators have become tremendously interested in the nutrition of children. The candy habit must be controlled or it will have a harmful effect.

Candy is a food, but a deficiency food. It lacks minerals, vitamins, proteins, fats and roughage. It will furnish energy but cannot build bone and tissue for growth and repair. Candy is frequently so highly flavored that the eating at regular meals of substantial foods like vegetables and milk becomes unattractive.

Even if the calories furnished by the candy were equal to the amount of food displaced, and this would happen rarely, it fails in many other ways to take its place. If milk and vegetables are pushed out the child fails to get proteins, lime, iron and other minerals and vitamins needed for growth and health. If the eating of candy between meals happens occasionally it is not a serious matter.

A craving for candy is a taste that has been acquired. Abundant evidence shows that children brought up without eating candy from early childhood do not crave it. In colonial times everybody depended on fruits, vegetables, honey and similar sources for their sweets. Candy and free sugar are not consumed in any such quantities abroad as they are in America.

It would be foolish, indeed, to make war on the eating of candy. It is not the mere eating of candy but its consumption between meals that is detrimental to health. If it were eaten at the close of the meal, as dessert, objection to its use would cease. Under such circumstances children would eat enough substantial food, and candy might well assist in a balanced ration and add to the enjoyment of the meal. Candy manufacturers and dealers today have realized this and are trying to educate the public as to the proper use of their product.

Most schools give some instruction as to the undesirability of eating candy between meals, but like other instruction in hygiene this teaching will not function unless it is carefully followed up. Children should be definitely encouraged to buy fruit rather than candy to eat between meals if a lunch seems necessary. Oranges, for example, are not open to objection. Possibly the pupils may be led to keep an account of the way they spend their money. Some badge, star or other mark of honor may be given to those who refrain from eating candy between meals for a month or for a longer period of time. In one school in which such a plan was carried out the corner candy stores went out of business.

Many schools, consciously or unconsciously, encourage the formation of the candy habit. Candy is made and sold in school buildings to raise money for extra equipment. The schools are loath to give up these practices. I have even been present at a health play at which candy was sold and devoured between the acts. It is extremely doubtful whether candy should be sold in school lunch rooms but, if so, there should be a supervisor in the lunch room who would see that no child made a meal on a chocolate bar or began his meal with candy. Since this supervision is difficult some schools are prohibiting the sale of candy in their lunch rooms.

A HAPPY NEW YEAR!

WITH this number of HYGEIA *this department is celebrating its fifth appearance. Friendly letters have come from different parts of the country, and even from foreign lands, commenting on the new department and wishing it success. These letters are appreciated. The department of Health and the School is for the readers of* HYGEIA. *It is hoped that these pages will be so much worth while that those engaged in health education cannot afford to miss a single issue. Suggestions are welcomed as to how it may be of greater service. Send your courses of study, samples of your best health work and, in fact, anything that will help us to visualize your problems and how you are attacking them. You will be making your contribution available then for the public good!*

May we wish you a Happy New Year!

HEALTH PROJECTS FROM NEWTON, MASS.

PLANS, methods and devices for health teaching that have been tried out successfully in the schoolroom have unusual value for teachers. Too frequently a philosophy of teaching is accepted that seems satisfactory from the point of view of general theory but fails because it has not grown out of actual experience.

In this and in the forthcoming issues of HYGEIA will be published a description of some of the most striking and effective projects worked out in the schools of Newton, Mass. A brief introduction by Miss Mabel C. Bragg, assistant superintendent of schools, precedes the series. Each project will be presented by the teacher who worked it out. She will tell how it developed and something about its educational value.

Newton, Mass., under Miss Bragg's able supervision, has become a mecca for those who are seeking new and better ways of teaching

health. It is visited by many supervisors and students of health education every year. When the Committee for the Relief of Belgium under the direction of Herbert Hoover wished to send somebody to Belgium to instruct the normal school teachers there as to how the teaching of health could be made an integral part of the school program, Miss Bragg was chosen. For several summers Miss Bragg has conducted large and enthusiastic classes in health education at the University of Michigan.

We believe teachers will appreciate the excellence of the Newton projects and that they will be suggestive in planning health work.

What new and original things are you working out in your school or in your school system?

HEALTH TEACHING IN THE NEWTON SCHOOL

THESE are fortunate days in the history of education because of the new emphasis on the teaching of health, thrift and safety. There is a steadily increasing interest in flexibility of program, in choice of subject matter growing out of the children's interests both natural and directed, and in wider opportunity for activity in work and play due to the desirable changes in equipment and procedure. Strength of character will enable the children to practice desirable habits of health, thrift and safety, but is it not also true that the practice of these habits will strengthen the character of the children?

Whatever we may believe about this, many teachers throughout the country are concerned about the physical health of their pupils and are seizing every opportunity offered by the changing emphasis in education to help children form health habits, gain health knowledge and establish health practices that will remove all possible hindrances to their mental, physical and spiritual growth.

When the teachers' interest is directed and stimulated by the influence of principals and superintendents, much may be accomplished. Real progress depends on the attitude of the administration, but classroom teachers can influence their principals and superintendents by showing them how to apply modern health principles in the classroom.

Especially is this interpretation valuable to administrators when it can be accompanied by keener readiness and greater accomplishments along lines of school life more familiar to them. New sources for subject matter in the lives of the children themselves and an extension of their experiences into desirable enterprises must result in accomplishments that will satisfy the most traditional.

The health education program in the Newton schools, and in many other cities as well, has been carried on by the introduction into the school program of certain procedures that have become as natural as taking attendance, conducting opening exercises, and all the details everywhere accepted in the proper management of a school.

These procedures, now generally included in the Newton school program, are as follows:

1. Weighing and measuring by the teacher.
2. Milk luncheon (by 10 o'clock).
3. Developing health habits. Teaching the rules of the game.
4. Physical education.
5. Health examinations and follow-up work by doctors, dentists, nurses and teachers.
6. Cooperation with the family and the social agencies.
7. Gaining health knowledge from hygiene teaching, home economics, science and civics.
8. Improving the teachers' health.

Details cannot be given here, but teachers, children, parents and the community are working without undue emphasis to secure better mental and physical health for the children. Making health fashionable has been our slogan for several years. It is often difficult to tell how some things are accomplished, for they have become such natural procedures we do not remember how they came to be. There is no fear of making the children morbid, self-conscious and introspective; they are working for positive remedial results. They work, they play, they grow and it is a part of the work of the school to cooperate with the homes in securing the best results possible. The board of health, doctors, nurses, dentists and social agencies of the community are closely associated with the school health program.

Much remains to be done, but teachers and children are carrying on a good work. The experiences described will show how much the teachers are interested in individual children and how happily and often victoriously the children participate in the activities that have as their objective better mental, physical and spiritual life.

Teachers must be allowed freedom and originality in carrying out their own ideas of the activities through which health education is to become a vital part of the school program. Through such freedom better health work can be done and greater happiness secured. Often there develops an influence that extends into all the other teaching in the schoolroom and there are established more successful personal relations among teachers, children and parents—valuable by-products of a health education program. Through health teaching with its new approach and its greater freedom, many teachers learn better how to teach and more satisfactory results in all school subjects are secured.

MABEL C. BRAGG,
Newton, Mass.

Sleeping on a Board

A health plan that has been of great interest and help to my pupils in the fifth grade is a sleep board.

During the morning health talk, it was learned that many children were not getting the sleep necessary for their growth. Most teachers will recognize this as one of their serious problems. I told the children about the time clock used

by many business firms and asked if they would like to try something like this to keep track of their bedtime hours.

The next day one boy brought in a crude device but the right idea. From this sample developed our sleep board, our time clock.

The board was prepared by one of the pupils. It was oblong with a paper clock face in the center. The hands on the face were pointed to 8 o'clock, the accepted bedtime hour for their age and grade. Below the clock face was printed the slogan, "Eleven Hours' Sleep." At the right was drilled a hole for each boy labeled with his name beneath. At the left the same was done for the girls of the class. The two groups were separated for competition purposes. A daily graph was also kept to compare the records of the girls and boys. The pegs for checking in were ends of matches painted red.

The children's first duty on entering the room in the morning was to "peg in" if they had lived up to the slogan and had eleven hours' sleep. Each child was remarkably honest in using this device. There was no penalty for failure, but if for any reason he failed to keep his contract with the sleep board a special effort was made to make up lost time the following night. Praise was given when deserved and in case of failure an opportunity to explain the reason to the class. Taking a bath, reading, company, going to Boston with father, and listening to the radio were all given as reasons for failure to be in bed at 8 o'clock. Understanding, patience and encouragement on the part of the teacher and pertinent comments from their classmates all influenced more or less the children's attitudes and practices.

Interest did not lessen but rather increased during the year, wherein lay the value of the scheme.

OLIVE CHIPMAN,
Newton, Mass.

TENNESSEE FIELD COURSE

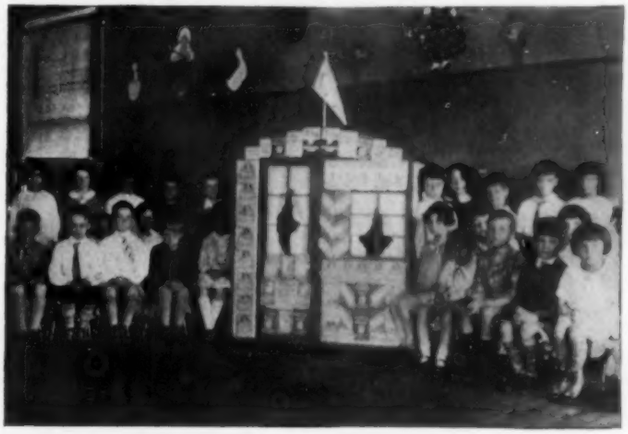
Tennessee teachers have a unique opportunity to carry on health teaching projects with the children in their own classrooms, made possible through the cooperation of the Tennessee Tuberculosis Association and Peabody College.

A course extending over two consecutive quarters carries four semester hours of credit; this may be applied toward a degree at Peabody.

Every teacher who enrolls must take five trips to the college to confer with the instructor. Those who cannot afford the expense of such a course may be assisted by local tuberculosis associations.

Mother Goose's Health House

Mother Goose's Health House is a project that we have worked out in grade 1, Rice School, Newton Center, Mass. In the beginning we had for our objective the arousing of enthusiasm for a hot cereal breakfast. We discussed the cereals we ate most often and the ones we like best. We began a collection of used cereal boxes. This collection grew into such mammoth proportions that something had to be done about it. We removed the fronts and backs of the boxes because this would save space, and space just then was at a premium.



Some one suggested that we "shingle" our threefold screen playhouse with these. This was received with enthusiasm and the shingling began. At first the shingles were tacked on "hit or miss" but after a few had been put on we decided that it would be more interesting if they were arranged in a regular design. Some of the boys measured the front of the house, the door and the window, and drew a "map" on our linoleum play-rug. We arranged and rearranged the "shingles" until we found the most pleasing grouping. Then we transferred them to the house.

One little girl suggested that it would look more homelike if we had frilly curtains. Accordingly the windows were measured for curtains, which were made from white crape paper, frilled to satisfy the most domestic.

Now arose the question, "Who lives in the house?"

For a time we let the Three Bears live there, knowing how fond they were of cereal (weren't they forever going out to walk while their porridge cooled?). We dramatized the story of Goldilocks and the Three Bears, using the little house with table, chairs and beds constructed from blocks.

About this time we began learning some Mother Goose health rhymes and some one suggested that the Three Bears move out and Mother Goose and her family move in. Thereafter we called the house "Mother Goose's Health House."

At once the daily lives of Mrs. Goose and her family became a most absorbing topic. "What did they have for breakfast, for lunch, for dinner?" (You may be sure they had very healthful meals.) "What time did they go to bed, and did they have plenty of fresh air in their rooms?" "How much milk did they drink every day?" "How much water?" And so on, applying the rules of the game to the family.

Mother Goose must have a health garden, of course, so a large piece of brown wrapping paper was laid on the floor beside the house and the seeds were "planted." We made small envelops, drew a picture of a vegetable in crayons on one side of it, writing the name just below the picture, and these were pasted on the "garden" standing up in neat rows.

We decided that Mother Goose should show off her fine, healthy family on Health Day, which came during the first week in May and to which parents and friends were to be invited. Accordingly, we made a little play by dramatizing some of our health rhymes, adding bits of costume to distinguish different characters, such as a sunbonnet for Mary Contrary and a big bib for Tommy Tucker. We finished our dramatization by having the family join in the folk dance "Oats, Peas, Beans and Barley Grow."

Although we began this work in February, enthusiasm was still high on June 21, when school was over.

The day before school was to close a group of little girls came to the teacher and said, "I suppose we have to have the Health House taken down to get ready for the children next year, don't we? Well, we just thought we'd ask you if you please would wait until after we had all gone home, so we wouldn't see that Mother Goose and her children had gone back to Fairy Land."

Following is a list of the activities growing out of this project:

Arithmetic.—Counting the number of shingles to the left of the door, to the right of the door, above the window and below the window. Counting the number of the same color. Measuring the height and the width of house, the door and the window, and drawing in the exact size on the floor. Measuring and cutting crape paper for curtains. Such problems as: If Miss Muffet ate a dish of oatmeal every morning, how many would she eat in a week? Tommy Tucker bought three boxes of Wheatena and two boxes of Ralston for his mother. How many boxes of cereal did he buy? Boy Blue planted five rows of corn and the crows ate two rows; how many were left to grow?

Hand Work.—Planning the designs for "shingling" the house. Free-hand cutting of cereal bowls, cups and milk pitchers for the family and decorating them with designs in crayon. Constructing seed envelops and decorating them with the picture of the vegetable. Drawing and cutting tulips and daffodils, which were pasted in a border around the vegetable garden. Making costume accessories for the play.

Writing.—Writing the names of the cereals. Writing such short sentences as: "Ralston is good for me," "Boy Blue likes Wheatena." Writing the names of the seeds planted, such as beans, onions and carrots. Writing invitations to Mother Goose's party. Copying lists of the fruit and vegetables that the family liked to eat.

Language.—Learning the group of rhymes. Dramatizing the Three Bears, and also the rhymes. Building the little play. Training in correct habits of speech through the use of the rhymes.

Physical Education.—Story plays, "Making Mother Goose's Garden" involving such activities as spading the ground, planting the seed, hoeing the garden, looking under the leaves for bugs and chasing away the chickens. Folk dancing, "Oats, Peas, Beans and Barley Grow," "Hickory, Dickory, Dock, 'Tis Seven by the Clock." (Mother Goose's children always went to bed promptly at 7 o'clock.)

Health Teaching Outcomes.—A closer acquaintance with the rules of the game and their application. More intimate knowledge of the vegetables that are good for us. Awakened appetite for many vegetables not eaten heretofore. Greater number of children taking the mid-morning milk lunch. More children keeping the regular 7 o'clock bedtime hour. And, no more mothers saying to the teacher, "I cannot get Billy to eat his cereal in the morning!"

ESTELLE ASHLEY,
Newton, Mass.

NEW HEALTH BOOKS AND TEACHERS' MATERIALS

What a good time Dr. Watson has in "Psychological Care of Infant and Child"[1] smashing our old-fashioned ideas about the training of little children. Every time he lands a blow you can fairly hear him chuckle, "There, wasn't that a good one?"

He startles his readers by asserting boldly that: "There are no instincts. We build in at an early age everything that is later to appear." He scoffs at John Dewey's conception that methods of training will develop the child from within. As for vocational guidance he believes that the college graduate is usually no better qualified to choose his profession than the child of 12.

Children are almost entirely what parents make them, the author believes. By the age of 3 the emotional disposition of the child is set. "At that age," he asserts, "the parents have already determined for him whether he is to grow into a happy person, wholesome and good natured, whether he is to be a whining, complaining neurotic, an anger driven, vindictive, overbearing slave driver, or one whose every move in life is definitely controlled by fear."

Regardless of how we may feel about them, Dr. Watson's theories are not born of an easy-chair philosophy but are the results of thousands of experiments performed on infants from the very hour of their birth. Dr. Watson is able to develop in an infant a particular fear of anything, as, for example, a rabbit, and then through a process of training to banish this fear. Many of his experiments are well illustrated by photographs taken in the laboratory.

This book is primarily for parents of little children and is designed to indicate the necessary psychologic care of infants as Dr. Holt's "The Care and Feeding of Children" taught the physiologic care of babies. It is valuable for teachers because it introduces them to practical behavioristic psychology and also indicates how emotional life develops.

The reviewer believes that Dr. Watson has taken an extreme position on several points but the book is filled with excellent suggestions on training little children. Teachers need to remember that the process of conditioning and unconditioning continues in the schoolroom. The psychologic care of children needs to be considered not only in the preschool period but also during the entire school period. Under such care teachers should be able to prevent many nervous breakdowns and be more successful in developing healthy personalities among the pupils.

1. By John B. Watson. Pp. 195. W. W. Norton & Company, New York, 1928.

There are books and books! Most of them are pot boilers. The authors compile their material from the books already in existence. They have little that is new in content, style or method. Out of this monotonous background a new type of book appears at rare intervals. It presents some new material and is dominated by a novel principle.

Such a book is "Learning How to Study and Work Effectively."[2] It attempts not so much to aid the student to accumulate knowledge as to develop effective methods of work. Everybody knows how much time students and all persons waste every day. This volume attempts to guide the student so that he may conserve and spend his energy in the best way. It might be called a practical psychology but it is more than that. It lends itself to the presentation of general hygiene. It takes up such problems as making a daily program so as to get enough work, recreation and sleep, how to relax, how to learn to concentrate the attention, how to remember and how to develop an interest in one's work. It is to be regretted that this excellent text does not take up the question of how to meet emotional problems. But this is, after all, a minor criticism because Dr. Book has blazed the trail for a splendid course in personal efficiency. His book would be an excellent text for college or normal school students.

If you, as a teacher, feel that you are not using your energy and time to advantage, get this book and give yourself a course in personal efficiency. There are a number of excellent experiments scattered through the text. Read the text carefully and perform the experiments religiously during the year and you will find yourself better fit to grapple with the daily problems of living.

2. By William F. Book. Pp. 475. Ginn & Company, 1926.

New Books *on* Health

Reviews of Interest

By

Morris Fishbein, M.D.

HEALTH READERS

Book I. The Safety Hill of Health. Pp. 90. Price, 68 cents. Book II. Building My House of Health. Pp. 136. Price, 72 cents. Book III. The Road of Health to Grown-Up Town. Pp. 152. Price, 76 cents. World Book Company, New York and Chicago, 1928.

THESE three books for children are planned primarily for the earlier grades.

The first book contains the stories of two boys, and deals with matters of diet, clean teeth and similar subjects. The second book tells by the story method the importance of many good health habits; two stories taken from Hygeia and from Healthyland are included in this book. The third book is also essentially a health reader, with material selected from many sources, with three of the longer stories taken from Hygeia.

The three volumes are printed uniformly in large type, illustrated in colors, and are quite suitable for the purpose for which they were prepared.

KEEPING MENTALLY FIT

A Guide to Everyday Psychology. By Joseph Jastrow, Ph.D., LL.D. Pp. 297. Price, $3.50. Greenberg, New York, 1928.

SINCE Professor Jastrow left the University of Wisconsin, where he was for more than thirty years professor of psychology, he has been devoting himself in large part to education of the public in psychologic matters through syndicated newspaper articles. Because of his scientific background and his years of experience and sound judgment, he is probably the most reliable of all of the writers on psychology in the popular field.

Most of the present volume seems to have been made up from the collection of newspaper articles in organized form. Through this organization, and by means of a suitable index, the average reader will be able to find an answer to almost every psychologic question that may disturb him. He will find the answer moreover in a succinct form and in a manner of expression which makes it exceedingly readable. I doubt that I have seen anywhere a sounder consideration of certain modern fads than appears in the chapter entitled "The Cult of Beauty," with a subheading, "Beauty, Behavior or Brains?" The psychology of lip-revival, of cosmetics and rouge, and the psychology of sport are a few of the topics that make this not only a useful but a most interesting book.

EXPLORING YOUR MIND, WITH THE PSYCHOLOGISTS

By Albert Edward Wiggam. Pp. 419. Price, $3.50. The Bobbs-Merrill Company, Indianapolis, 1928.

MR. WIGGAM is one of the most popular interpreters of science for the public. The present volume consists of essays printed in various periodicals dealing with current psychologic investigations. Among the noted psychologists who have been visited by Mr. Wiggam, and whose work is here expounded, are Thorndike, Cattell, Terman and Seashore. The volume concludes with an interview with Dr. Michael I. Pupin, which concerns not so much psychology as the views of the great physicist concerning science and religion, life and immortality.

As in his previous volumes, "The Next Age of Man," "The New Decalogue of Science" and "The Fruit of the Family Tree," Mr. Wiggam has been able, with a fine journalistic sense, to select living vital material, and to present it readably to an interested public. However, the present volume, like the previous works, seems to suffer somewhat in its scientific perspective by its inordinate enthusiasm. No doubt this enthusiasm is the factor that makes it possible for Mr. Wiggam to seize and to hold his reader's attention. Perhaps this may be compared to the sugar coating on the pill, which makes it possible for the patient to get the benefits with the sugar coating, whereas, without it, he would refuse to take the pill altogether.

Modern psychology has developed many interesting methods that are not yet accepted and established. Unfortunately, the popular volume is likely to give to its readers the impression that all that it contains represents actual progress, when in many instances the newer technics are merely markers by the way.

A SHORT HISTORY OF MEDICINE

By Charles Singer. Price, $3. Pp. 368. Oxford University Press, American Branch, New York, 1928.

THE history of medicine is a fascinating story revealing how man has progressed from the dark periods of antiquity, through the beginnings of scientific observation under the Greeks, through the eight hundred years of religious mysticism, through the beginnings of anatomy, physiology, pharmacology, pathology and bacteriology, to the great rise of preventive medicine that is characterizing the twentieth century.

Professor Singer provides the reader with the fundamental facts, with enough reference to original sources to retain romance and personality and with innumerable well selected and handsomely printed illustrations.

Any serious reader who wishes to orient himself in the rise of modern medicine will find Professor Singer's book to be the best one volume, small textbook available.

RULES FOR RECOVERY FROM TUBERCULOSIS

By Lawrason Brown, M.D. Fifth edition. Price $1.50. Published by Lea & Febiger, Philadelphia, 1928.

THE fifth edition of this exceedingly valuable handbook is beautifully printed.

Considerable new material has been added dealing with the use of sunlight, the common cold, and on the mental attitude in tuberculosis. Other changes have been made in the section on food. Here is one of the best booklets that can be recommended to the tuberculous; indeed, it is such an admirable piece of work that no intelligent tuberculous patient should be permitted to be without it.

News *and* Views

From the

FIELD OF HEALTH

FIND NEW YORK DENTAL SERVICE INADEQUATE

Dental clinic facilities for persons who require free dental treatment or dental service at moderate cost are far short of what is needed in Greater New York, a study by the New York Tuberculosis and Health Association shows. Although there are 152 clinics with a total of 492 chairs, they are used for an average of only sixteen hours a week out of a possible full-time use of from thirty-three to forty-two hours a week.

Few of the clinics even approach self-support, the survey reveals, but in most cases they are partially self-supporting. The fees vary from no charge in twenty-three clinics to $1.50 in one clinic. The common admission fee is 25 cents. The association's committee on community dental service is seeking means to support full-time use of the facilities and to make possible wider distribution of the services. At present most of the clinics are concentrated in Manhattan, which has 82 per cent of the dental chairs.

DIPHTHERIA CAMPAIGN REDUCES DEATHS

Striking results have been obtained in an antidiphtheria campaign in Virginia since the early part of 1927. During that period 250,000 children have been immunized. The state showed as a result an 18 per cent decrease in the number of cases and a 38 per cent decrease in the number of deaths from the record of the previous year. Clinics for giving the children protection against their arch enemy were held in the rural schools, local physicians and the state department of education cooperating with the board of health.

CORRECTION

In an article on Dr. Norman Bridge in the October issue of HYGEIA the Woman's Medical College of Philadelphia was incorrectly named as one of Dr. Bridge's professional connections. Dr. Bridge was never on the staff of the Philadelphia institution but was affiliated with a Woman's Medical College in Chicago, later merged with Northwestern University.

PLAN WORLD CONFERENCE ON MENTAL HYGIENE

Plans for an international congress on mental hygiene to be held in Washington, D. C., in May, 1930, were adopted recently at the annual meeting of the National Committee for Mental Hygiene. Societies for mental hygiene now exist in Great Britain, France, Germany, Belgium, Spain, Italy, Switzerland, Brazil, Hungary, Bulgaria and the Republic of South Africa. They are in process of formation in Holland, Australia, Denmark, Norway, Sweden, Russia, India, Japan, Greece and Czechoslovakia.

The proposed congress will be the first international conference of workers in the field of mental hygiene. It will afford an opportunity to pool fundamental knowledge and equalize its distribution and to seek out the next steps in the approach to the problems, its sponsors believe.

UNDULANT FEVER BECOMES PREVALENT

Health officers in various midwestern states have expressed anxiety concerning the prevalence of undulant fever, an infection contracted by man from lower animals.

Undulant fever is caused by a germ that occurs in several strains in lower animals, the most virulent and dangerous to man being the type found in hogs. The disease appears to be transmitted from hogs to milch cows and from cows to man through raw or unpasteurized milk.

Undulant fever attacks young adults principally and resembles typhoid fever or malaria so closely that it probably is mistaken for one of these diseases in many cases. It is positively identified by examination of the blood for the organism. It is not often fatal, but it causes a long and incapacitating illness.

DIVIDE NEW YORK CITY INTO HEALTH AREAS

New York City has been divided into 270 health areas with an average population of 21,000 each. Health and vital statistics will henceforth be made on the basis of these areas as mapped by the welfare council.

The council considers this step one of the most important accomplishments in health work during the past quarter century, in view of the now widely accepted principle that health work must be developed on a neighborhood basis and that there should be careful health accounting, both for the economical planning of work and the measuring of progress.

When statistics are analyzed under the new plan it will be possible to compare the prevalence of any of the major diseases in any one small section of the city with that in any other section. It will also be possible to note quickly any important rise in reportable diseases, such as measles, scarlet fever, whooping cough, diphtheria, tuberculosis, venereal disease, influenza and pneumonia.

IMPROVE SURROUNDINGS FOR GERMAN WORKERS

Hygienic surroundings and good working conditions for federal employees are urged by the minister of federal postoffice department in Germany in a recent publication quoted by the German correspondent of *The Journal* of the American Medical Association.

Provision for regular and thorough cleansing of workrooms, for a constant supply of fresh air and for adequate heating of the rooms during cold weather must be made. Lavatories must be conveniently located, especially in departments where mail is handled and the hands are therefore easily soiled. All new postal stations with a large personnel should have shower baths, the official declared.

Devices for toning down noises and for mechanical lifting of heavy bags of mail are recommended and it is further planned that new buildings shall have roof gardens that may be used for recreation, instruction and gymnastic exercises.

Pacific and Atlantic

JAPANESE GIRLS FIGHT FIRE

A fire drill for girls in Tokyo means more than filing out of a building in orderly fashion. This group at the left is actually fighting fire with hose and buckets.

Pacific and Atlantic

BLIND STUDENT ACHIEVES HONOR

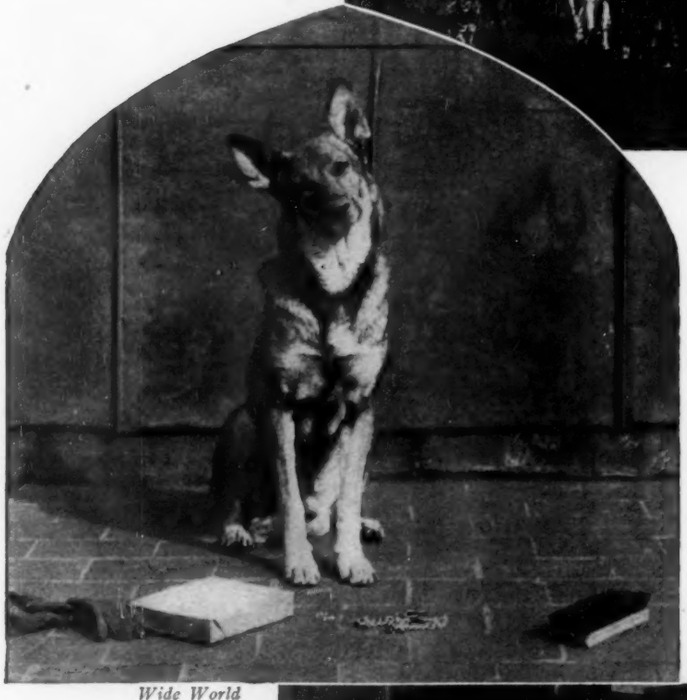
This is the way Herbert F. Geisler, blind student at the University of Chicago law school, has gained distinction in his classes. A friend reads his lessons aloud to him while he transcribes them on his Braille typewriter. Geisler was recently elected president of the senior law class.

Pacific and Atlantic

ROOF
PLAYGROUNDS
SOLVE
THE
PLAY PROBLEM
FOR
CHILDREN
at the
Lenox Hill
Neighborhood
Association
in
New York.

HUNTERS WEARING THE TRADITIONAL RED UNIFORM OPEN the autumn season at Doeberitz, Germany

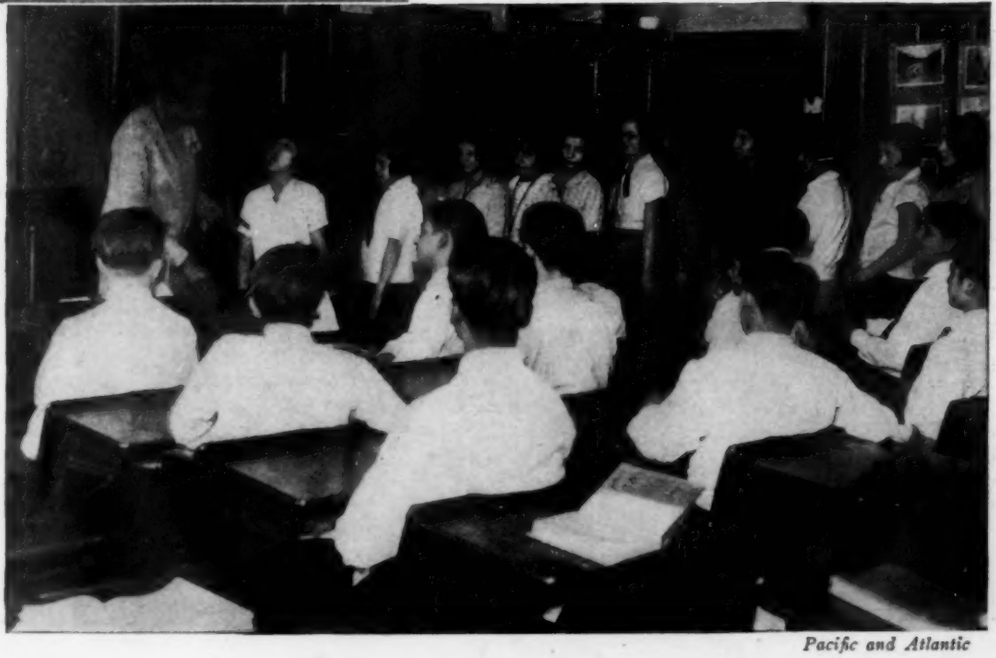
Pacific and Atlantic



Wide World

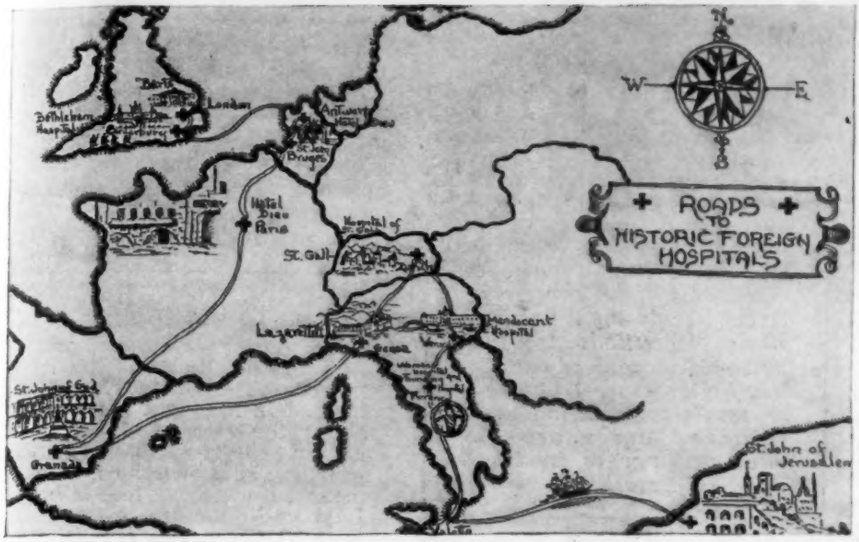
HOW MUCH DOES A DOG UNDERSTAND?

Two Columbia University scientists have concluded from tests on "Fellow," the German police dog shown at the left, that dogs obey their masters from what they see rather than from what they hear.



HEALTH NURSE EXAMINES NEW YORK SCHOOL CHILDREN as part of health week program.

Pacific and Atlantic

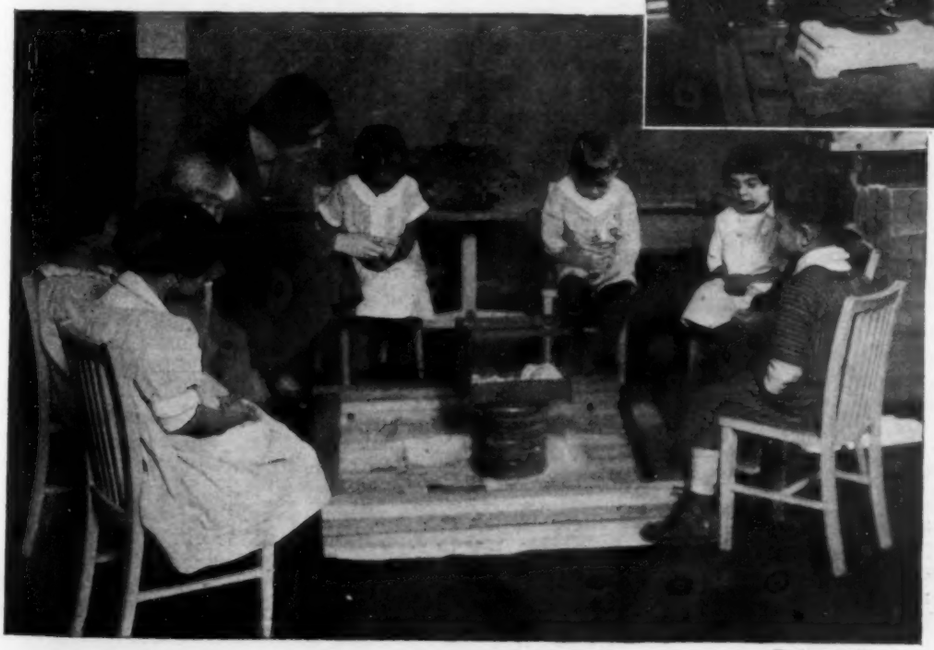


LEAGUE ISSUES CALENDAR

The National League of Nursing Education incorporates the current vogue for illustrated maps in its 1929 calendar, which features historic hospitals.

MAYOR WALKER SETS THE EXAMPLE

New York's popular mayor steps on the scales as part of a physical check-up by which he inaugurated a campaign for periodic health examinations in New York City. The campaign is sponsored by the city health department, the New York County Medical Society and the Bellevue-Yorkville Health Demonstration and will last an entire year.



Ewing Galloway

GIVING THE SLUM CHILD A CHANCE

Caring for children who would otherwise be left to play in streets and alleys is one of the most important functions of Hull House, famous Chicago settlement. The group below is studying white rats in a kindergarten class conducted for children of wage-earning mothers.

Questions *and* Answers

If you have a question relating to health, write to "Questions and Answers," HYGEIA, enclosing a two-cent stamp. Questions are submitted to recognized authorities in the several branches of medicine. Diagnoses in individual cases are not attempted nor is treatment prescribed.

Digitalis

To the Editor:—Will the taking of 15 drops of digitalis three times a day have a bad effect on a normal stomach? The digitalis is being taken for slight heart trouble. Will it be helpful for a throat difficulty which is caused by neglected bronchial trouble? Should digitalis be taken indefinitely? I have now been taking it for two months.

E. A. G., Washington.

Answer.—Digitalis frequently disturbs the stomach; that is one of the difficulties in its administration.

Whether or not it is suitable in the case of the inquirer is something that only his personal physician, knowing all of the facts, can determine. Digitalis is a drug capable of harm as well as good and should never be taken except on the advice and under the direction of a physician.

Headache

To the Editor:—Please advise me if there is harm in the taking of 5 grain phenacetin tablets to relieve headache, if one takes perhaps three at two-hour intervals on an average of once every two weeks. Would they affect the heart or how do they act? What about 5 grain empirin tablets? Is aspirin better? I have had a complete physical examination in an effort to find the cause for these headaches, have had my glasses changed frequently, have had a sinus operation and a deviated septum straightened, and still they come. It seems wiser to relieve them than to endure the pain.

B. M., Maine.

Answer.—It is not wise to use tablets of any of the coal tar products except on the advice and under the direction of a physician, as phenacetin and acetanilid, acetylsalicylic acid (trade names, aspirin and empirin), and a number of other similar remedies of coal tar, are all depressants to the heart and also affect the blood unfavorably.

If, after all that has been done to relieve the patient's headaches, the physician feels that it is proper to take remedies of this sort for temporary relief, that is a matter for his judgment with his knowledge of the patient's condition.

Feather Beds; Paramels

To the Editor:—1. Is it unhealthful to sleep on a feather bed if the feathers are live goose feathers which are kept free from dust and given airing frequently? Is it weakening? 2. What are the ingredients of Paramels, made by the Battle Creek Food Company of Michigan? They are to be eaten with the meals daily for relief of constipation. Are they apt to be habit-forming and would daily use be irritating to the stomach after a time?

L. T., Massachusetts.

Answer.—For most persons sleeping on a feather bed is not unhealthful, but there are occasional persons to whom the emanation from feathers is disturbing, causing symptoms like hay-fever.

2. Paramels are, according to the advertisements, merely chocolate covered tablets of mineral oil, mixed, we presume, with agar.

When one is compelled to take a laxative, mineral oil is perhaps the least irritating and injurious of any preparation of this sort. It is better hygiene to overcome constipation by diet and exercise and to avoid the taking of laxative substances.

Position of Kidneys

To the Editor:—The members of the Kiowa Home Nursing Class have been studying the body. In several pictures we have noticed that the left kidney is higher. We should like to know if it should be, and why?

P. H., Kansas.

Answer.—The kidneys are situated in the posterior part of the abdomen, one on either side of the vertebral column; their upper extremities are on a level with the third lumbar vertebra. The right kidney is usually slightly lower than the left, probably on account of the proximity of the liver.

Tonsoliths

To the Editor:—My son, who is 23 years old, had his tonsils removed. The doctor found embedded in his right tonsil a rock about the size of a pea. The doctor, who has had an extensive practice, said that he had never met with anything like it before. I should like to know what brought about this condition.

A. Y. B., Texas.

Answer.—Cases of stone in the tonsil, or tonsolith, are not rare. They have in all probability the same causes as tonsillar cysts and occur with about the same frequency. They are composed chiefly of calcium phosphate and calcium carbonate. They result from a chronic inflammation of the tonsil.

Polypi

To the Editor:—Is there any treatment for a polypus other than cutting? I have had one cut off once and cauterized twice, but it still persists in coming back. Is there any way of getting rid of it permanently? What is the cause of it?

I. B. Z., Michigan.

Answer.—Nasal polypi are caused, as a rule, by changes in or disease of the lining membrane of the little cells of the ethmoid bone, which forms part of the framework of the nose. In some cases, polypi arise from cells of other cavities connected with the nose, such as the frontal sinus, the sphenoid sinus, or the maxillary sinus (antrum).

The treatment of the polypus is really a matter of the treatment of the cavities from which it springs. When pus is present, it is necessary to wash out the sinuses; but, besides this, surgery is sometimes necessary.

In cases in which there is no pus and in which there is disease in the lining membrane, there is often considerable sneezing and a thin, watery discharge. In these cases, the mere removal of the polypus is not sufficient, and it is necessary to find a definite cause for the peculiar change of the nasal mucous membrane. It may be due to the use of certain foods, to the presence of bacteria or to proximity to certain substances such as

face powders or the dander of animals.

If the definite cause is ascertained, the offending substance must either be eliminated from the diet or environment or the patient must be desensitized, so that he can tolerate it.

Cauterization of the surfaces from which the polypus has been removed may aid the other measures mentioned. The patient, however, must be warned that, after a polypus has been removed, there is always the possibility, indeed, the probability, that another will form.

Otosclerosis

To the Editor:—I have been referred to you by the Volta Bureau. Can you tell me anything about a Dr. Stephen Olin Richey, who at one time practiced in Washington? I have been told that I am suffering from otosclerosis; in fact, there have been several diagnoses made, one being that of catarrhal deafness, another that of nerve deafness and the latest that of otosclerosis. It is in relation to otosclerosis that Dr. Richey is concerned. In going through medical journals in the New York public library I came across an article by Dr. Richey in which he described his method for treating this disease. He referred to it as general atrophy. Are they the same? His method was to induce the vapors of iodine into the middle ear by means of inflation. By use of a controlled air pressure, Dr. Richey avoided a violent and spasmodic inflation such as is obtained with the Politzer bag. This is all that I can tell of the method, for further technic is beyond my understanding. Is electrical therapy of any value in treating deafness? What type of climate is essential in treating dry catarrh? A. H. C., New York.

Answer.—The only record we have of a Dr. Stephen Olin Richey is that of a physician who died Oct. 8, 1919, at Washington, D. C.

As to the treatment described as having been perfected by Dr. Richey, we feel certain that it has not been found generally useful though it might be of some advantage in some cases.

There is a wide difference of opinion among physicians as to the usefulness of electrical therapy of various sorts in the treatment of deafness.

In this as in some of the other diseases, the selection of climate is a good deal of a lottery; for in conditions that seem much alike, one patient will be benefited by a certain climate and others will not obtain relief but actual aggravation of symptoms. The physician who is thoroughly familiar with the case is the one to advise as to climate.

Infected Antrum

To the Editor:—Will an infected antrum yield to treatment without an operation? This sinus trouble first became noticeable two years ago when an infected tooth was removed. Since then I have had a slight drainage through the throat, more noticeable in the mornings when I first wake up. Lately I have had a dull, hollow feeling in my head, especially back of my eyes. Can this be caused from the infected antrum? The irritation and drainage is so slight that I hesitate to have the operation unless convinced that the results might prove serious if this trouble was allowed to continue.

D. E. H., Missouri.

Answer.—It is impossible to determine the nature and extent of an antrum infection without a thorough examination of the nose and of the antrum itself.

Antrum infections following teeth extractions are sometimes kept infected by a permanent fistula through the tooth socket. Also malformations in the nose which interfere with the normal drainage tend to keep up the infection.

If there is no fistula, the antrum should be irrigated to determine whether or not infection is present. If so, it is necessary to rely on the opinion of the physician as to whether or not surgical intervention is necessary.

Cancer of the Uterus

To the Editor:—Can you send me literature or information in regard to cancers. A member of my family has cancer of the uterus. She had an operation. Do you know of any cases that have been cured by x-ray treatment or radium? How long do the majority of persons with cancer of the uterus live? This patient has lost 90 pounds and has been suffering for two years.

B. H. R., Pennsylvania.

Answer.—The literature on cancer of the uterus is voluminous, but most of it is written for those who are trained scientifically.

Cancer of the uterus is a serious disease because it frequently gains a foothold without many outward symptoms. A mild backache or a slight bloody discharge appearing at irregular intervals may be the only early signs. A woman, beginning at the age of 35, should have a careful examination of her organs at least once a year until the age of 45; thereafter, she should have such an examination once every six months.

If cancer is noted early in its course, the chances for a cure are favorable. In neglected cases the reverse holds true.

Many cases of early cancer are cured by radium and x-ray. More advanced cases are relieved for periods ranging from a few months to several years. In early cases life is prolonged from five to twenty years, while in severe cases, the patients live a much shorter time.

There are three well-recognized methods of treatment: (1) operation with and without the use of radium; (2) radium treatment alone, and (3) x-ray treatment alone.

Artificial Teeth

To the Editor:—Can a whole set of upper teeth be made to stay in the mouth without the plate that covers the roof of the mouth? If so, how is this done? Does the presence of a plate rob food of its taste? Do artificial teeth fit better if one gets both upper and lower sets at the same time? I have been told that the longer one goes without teeth after having them pulled, the better artificial teeth will fit. Is this so? When artificial teeth are made, can a person's gums be made less conspicuous than formerly? When the mouth is in repose, should the tongue lie level with the lower teeth or should it lie above the lower teeth? When a person with pyorrhea has all teeth extracted, will the pyorrhea leave when the gums are healed?

N. L., Illinois.

Answer.—An upper set of artificial teeth without a plate can be used only in an ideally shaped mouth. Such dentures are rarely used successfully.

There are no taste sensations in the roof of the mouth but the taste or the feeling of food seems greatly altered when one first begins to wear a plate. This objection is usually largely overcome as the wearer becomes accustomed to the plate.

There is advantage in having both upper and lower plates made at the same time, if possible. The upper plate is more easily fitted when both plates are made and inserted at the same time.

It is better to have artificial dentures made immediately after the teeth are extracted and to have them placed in the mouth as soon as possible. This prevents changes in the cheek muscles and other structures and permits the face to retain a more natural look.

When the gum tissue supporting the natural teeth is conspicuous, it is sometimes possible to fashion artificial plates so that the gums are less conspicuous.

The tongue normally lies above the level of the lower teeth.

There can be no pyorrhea when there are no teeth.

Winter Sunlight

To the Editor:—I have an incipient case of tuberculosis, with some moist pleurisy at times. I am going to spend the fall and winter in the Blue Ridge mountains of Virginia, where it gets cold, and I am wondering if winter sunbaths are as beneficial as the summer sun's rays? If so, how long should I expose myself each day? Do the rays lose their curative power if they shine on the patient through a window pane?

E. M. H., Virginia.

Answer.—The question of exposing a person with pulmonary tuberculosis to the sun's rays, especially in the colder months of the year, is one that must be studied and settled for each individual case. The rays in winter are not so rich in ultraviolet rays as are those from the summer sun. They are not so helpful in pulmonary tuberculosis as they are in tuberculosis of other parts of the body, such as the bones, joints, glands and skin. They are apparently more potent in childhood. Most of the ultraviolet rays are arrested by ordinary window glass, and special types of glass are manufactured which transmit ultraviolet rays.

The manner of exposing the body and the duration of the gradually increasing period of exposure are questions that the physician must decide for each case.

Abscessed Tooth

To the Editor:—I have a front tooth (dead, with root canal filled) to which a front bridge is attached. The x-ray shows a small abscess apparently just starting at the root, although it is not distinct. Is there anything I can do to keep the abscess from forming, such as having it oxidized by an electric machine on the outside of the root around the gum, to scatter the infection? Can this be done, as some assert, or is it a waste of time and money to attempt it without opening up the tooth again? Is oxidizing a tooth after it is filled to scatter infection really of any use? Of what does oxidizing consist? Is the operation of cutting through the bone, amputating the root, for an abscessed tooth, successful and to be advised to save a front tooth?

M. H., Texas.

Answer.—The x-ray cannot show an abscess, small or otherwise. It can show only a change in the density of bone around a tooth root. The shadow which is often taken for an abscess merely indicates a thinning of the bone. In this shadow there may be an abscess or there may be nothing harmful. The x-ray cannot show whether it is harmful or not.

A tooth such as the one described should be let alone unless it causes trouble, and another x-ray should be made in six months to see if the shadow is growing larger. If it is not, the dentist should not disturb the tooth. If it is perceptibly larger, cutting off the end of the root by going through the gum may relieve the trouble.

Thyroid Enlargement

To the Editor:—Last December a physician told me my thyroid gland was enlarged. My throat is not conspicuously enlarged, but it is growing fuller and I have twinges of pain and a feeling of constriction when I am tired. In March, 1927, I had radium treatment for a fibroid in the uterus, and menstruation was thus checked. Do you think it probable that the abrupt checking of menstruation caused thyroid development? It had never been noticed before. Will you suggest any foods that I should eliminate, such as chocolate or eggs? Is goiter related to cancer? Is a metabolic test infallible indication of thyroid condition?

M. V. B., Pennsylvania.

Answer.—It is possible that the removal of ovaries or treatment of them by radium, x-ray or any process that interferes with menstruation may lead to enlargement of the thyroid and increase of its function.

Such foods as the red meats with their so-called kinetic drive might be eliminated with benefit; chocolate and eggs would have little influence.

Goiter is related to cancer only in that a small percentage of adenomatous (lumpy) goiters become cancerous.

If enough metabolism tests are taken over a sufficient period their average is a practically infallible indication of the condition of the thyroid.

Flat Feet

To the Editor:—I have a boy 7 years old whose footprints indicate that his feet are flat. His ankles do not seem to be affected, and he toes straight ahead in walking. Does he need an appliance to correct this condition? What is your opinion of special shoes?

R. N. A., Rhode Island.

Answer.—In the absence of a personal examination, it is impossible to advise whether an appliance is needed to correct the boy's flat feet. The feet of many persons are naturally flat, as are the feet of some of the colored races. The only sensible thing to do is to ask the family physician to recommend an orthopedic surgeon who gives his attention especially to troubles of this sort. He would be the one to advise as to shoes, arch supports or other devices which may be needed.

Receding Gums

To the Editor:—Would you explain what causes gums to recede, making the teeth grow outward instead of downward? What can one do to prevent or better such a condition? I have three pivot teeth in front and a bridge on each side of the jaw.

J. W. G., Pennsylvania.

Answer.—There are numerous causes for receding gums. Tartar is an active cause, as are the overhanging margins of poorly finished fillings and inlays or rough edges of poorly fitting crowns. Constitutional conditions may also be contributing causes of sore and receding gums. But the one outstanding cause is irritation, usually mechanical but sometimes chemical.

After teeth are fully erupted at about the twelfth year they do not grow either in length or breadth. Neither do they change their position in the arch unless an abnormal condition is present. When a first molar tooth has been lost, the approximating teeth soon begin tipping toward each other. They continue this movement until they entirely or almost close the space. The movement of these two teeth permits the movement of the adjacent teeth and in time they too will show separations where originally they stood firmly together. Following the loss of the lower molar the upper or opposite occluding molar will begin to elongate from its socket because it has no lower tooth to strike. Unless the lower space is filled the upper tooth will continue to elongate from its socket until it becomes loose and is finally lost. This condition may occur in any part of the mouth in which teeth are lost.

When several teeth are lost, especially the molars and bicuspids, and when no artificial substitutes are employed it becomes necessary to masticate entirely with the front teeth. This puts too great a strain on the front teeth, and frequently they either wear down rapidly or the lower teeth push the biting edges of the upper teeth toward the lip causing a condition that predisposes toward pyorrhea and early loss. If teeth are extracted and the spaces left vacant for a period of years until the remaining teeth have elongated or shifted in their normal positions, the use of bridges or other substitutes is not likely to correct the difficulty.

When one or more teeth are lost they should be promptly replaced by substitutes to prevent the shifting of the remaining teeth and to permit proper mastication of food. If tartar is not permitted to gather on the necks of teeth and if the margins of crowns and fillings are made smooth there is little likelihood of receding gums.

Loss of Weight

To the Editor:—My wife is 5 feet 2 inches tall, weighs 102 pounds and is 22 years old. What should she weigh? She continually complains of gas on her stomach, no matter what she eats. She also complains that her food, which she eats slowly and chews well, feels like a hard ball in her stomach. She eats little at a time. During the day she operates a typewriter. Does her work cause the trouble? When she was 18 she weighed 148 pounds and felt fine. Does the difference in her weight cause the trouble?

R. E. S., Kansas.

Answer.—According to the insurance tables, the average weight for a woman of 22, who is 5 feet 2 inches in height, is 120 pounds. The inquirer's wife is therefore considerably underweight and of more significance is the fact that she has lost weight so decidedly. It seems probable that some organic trouble is responsible. Certainly the wisest thing for her to do is to have a thorough examination by a competent physician. If any organic trouble is found he will advise her as to the best course to pursue.

Dementia Praecox

To the Editor:—What is the cause of dementia praecox? Is one suffering from this disease ever dangerous to others and what is likely to be the final result? Please give me information necessary to obtain literature that will help me to understand this condition.

L. M., California.

Answer.—Dementia praecox is a mental disorder, classified as a functional psychosis or insanity. By functional psychosis is meant a disease without constant or definite changes in the structure of the brain. No specific or definite causes are known for the development of dementia praecox. Many prominent workers and investigators in the field of psychiatry have helped to classify and differentiate it from other forms of mental disorders, but have not been able to determine a cause or causes which are always present in the different cases.

Generally speaking, the causes are divided into predisposing and exciting. By a predisposing cause is meant something that paves the way for the development of the peculiar symptoms of this disorder. Among the predisposing factors, heredity stands out most prominently, not that dementia praecox is transmitted directly, but mental abnormalities in the ancestors may transmit to the individual an unstable nervous organization. Exciting causes are such factors as environment, lack of proper training in childhood, disorders of the endocrine, or ductless, glands and toxemias from focal infection. These may be sufficient to disturb the mental balance in a person with an unstable nervous make-up.

A person suffering from dementia praecox may do harm to himself or to others.

To all intents and purposes, recovery may result in a certain percentage of cases. Other victims are unable to adjust themselves and become permanently disturbed mentally, necessitating constant care at home or in an institution.

Bunions

To the Editor:—Will you be good enough to give me your opinion of Pedodyne? I am interested to know whether this remedy will dispose of a swelling. I have a bunion that never gives me any pain so long as I wear special shoes, but I have an ugly knob that I should like to get rid of. When replying will you kindly suggest a remedy for the reduction of swelling of this kind?

M. K. W., New York.

Answer.—The claim that a remedy of the sort mentioned will reduce a swelling simply by rubbing it on is absurd. Any preparation containing salicylic acid will remove some of the cells of the superficial layer of the skin, but that it will cure the condition as described is a preposterous claim.

The first thing is to get shoes in which there is no pressure on the affected parts and which are perfectly comfortable in all positions. Then one should consult a competent surgeon, preferably one who devotes his attention exclusively to orthopedic surgery. In severe cases surgery is the only remedy.

Preventing Pneumonia

To the Editor:—I have just recovered from a moderately severe attack of pneumonia following influenza and I should like to know how to guard against further attacks.

M. C., South Dakota.

Answer.—There is no specific vaccine or inoculation that will protect one from pneumonia. Actual attacks of pneumonia provide immunity for only a short time; in fact, many physicians feel that persons who have had pneumonia are thereby more likely to suffer from subsequent attacks. Pneumonia is an infectious disease. Persons who are suffering from pneumonia, therefore, should be isolated from other members of the family and community, and careful precaution should be taken by the nurse, physician and others who come in contact with cases of the disease.

Well persons, especially those who have previously suffered from pneumonia, should keep away from persons ill with the disease, unless imperative duty demands that they aid in the care of such persons.

As there is no specific protection afforded by any serum, vaccine or other agents, one must rely on general immunity, such as is afforded to a certain degree by the maintenance of the best bodily condition secured through good hygiene, including correct diet, suitable exercise, sufficient fresh air, ample sleep and personal cleanliness.

As the germs that cause pneumonia are present in the mouth and throat of many healthy persons, attention should be given to mouth hygiene by the use of mouth washes and careful brushing of the teeth. Exposure to cold, especially sudden chilling, apparently makes one more liable to infection, and, therefore, attention to clothing, keeping warm in cold weather, and the avoidance of drafts of cold air are important. Infection is more likely to occur in crowded rooms with poor ventilation.

Iodine in Pulmonary Tuberculosis

To the Editor:—Will you kindly give me information regarding the administration of iodine in pulmonary tuberculosis? What effect has it on the respiratory organs? I understand it is generally believed to be contraindicated in hemorrhage cases on account of the potassium iodide content. Please advise what the contraindications are for its use and any unfavorable reactions resulting therefrom.

P. E. N., Colorado.

Answer.—There is much difference of opinion as to the value of iodine and potassium iodide in the treatment of pulmonary tuberculosis and also as to the conditions in which they are most useful. It is a question which only a physician can decide after a careful and thorough examination and study of the case.

Diseases of the Liver

To the Editor:—I should like to see in HYGEIA a discussion of the diet and treatment necessary when there is thickening of the liver secretion. Is there any remedy for an enlarged liver?

M. S. C., Pennsylvania.

Answer.—There is no treatment for "thickening of the liver secretion," whatever is meant by that. As to enlargement of the liver, that is a mere sign of several kinds of trouble; among them, cancer, syphilis and one type of cirrhosis. There is, therefore, no remedy simply for enlarged liver.

"Catarrh"

To the Editor:—Is chronic nasal catarrh ever cured? Are glucose injections of any benefit? Does diet have any effect on the discharge? Is this discharge a natural mucous secretion caused by overstimulated membrane or is it caused by the disease? Is it purulent? Is catarrh a blood disease and does the body ever absorb enough poison from this condition to affect the meninges of the brain?

A. P., Washington.

Answer.—Answers to the foregoing questions cannot be made from the proffered information. The reason is that we have no way of knowing what the disease of the nose referred to as "catarrh" really is. "Catarrh" is a term now practically discarded by the medical profession as having no accurate meaning. It is used by the public vaguely for abnormal conditions of the nose or throat that produce discharge.

Discharge from the nose may be due to any one of a dozen or more abnormal nasal conditions, each having its own peculiar cause and its own peculiar characteristics. In certain of these nasal diseases the discharge is mucoid and in others is purulent.

Inflammation of the meninges of the brain may be caused by purulent nasal inflammations, but this happens only with great rarity. Consultation with a physician fully competent to diagnose and treat diseases of the nose and throat is advised.

What Is the Best Birth Month?

To the Editor:—What is the best month of the year for a child to be born, taking all factors into consideration? For instance, has a child born in March an advantage? It is evident that the child and mother would not suffer from the heat as much as in August, for instance. It would seem also that first teething would come the following winter whereas a December child would have the experience through the heat of summer. Do vital statistics throw any light or does environment overshadow any such figures? Is there more chance for mother and the March baby to get outside and enjoy the sun in the first six months of the child's life? In other words, can one theoretically or practically pick an ideal month of the year?

M. L. W., Ohio.

Answer.—Birth statistics for Ohio and other states in the temperate zone show that every month is now a good month to be born in. If there were any seasonal advantage to mother or offspring nature would doubtless have availed herself of it. Medical science has already discovered many of the laws that are at work. Season of the year has little more influence in Ohio than have the signs of the zodiac.

Some of the factors that make every month a safe month are:

1. Prenatal hygiene prevents miscarriages and premature births.

2. Vitamins in the expectant mother's diet help insure a healthy offspring.

3. Routine urinanalyses and blood pressure determinations detect impending dangers to the expectant mother.

4. Breast milk supply can be stimulated if the infant nurses at both breasts.

5. Simplified artificial feeding with boiled fresh cow's milk, water and sugar (in proper portions) augmented with cod liver oil, orange juice and green vegetables has removed the dangers of the first and second summers.

Exposure to X-Rays During Pregnancy

To the Editor:—Will an x-ray taken of an expectant mother to determine development of the child before birth injure the eyes of the infant?

M. J. H., Wisconsin.

Answer.—The usual x-ray procedure to determine the development of the fetus, done with proper precautions and with modern apparatus, will not in any way injure the eyes or materially influence the development of the child. Pregnant women should not take x-ray treatments of the abdominal or pelvic regions, particularly in so-called massive doses. In diagnostic procedures, the amount of x-ray reaching the fetus is inconsequential unless an excessive number of exposures are made.

Sleep; Cancer

To the Editor:—1. Is it necessary for a 19 year old girl, pronounced to be in perfect health following a complete physical examination, to get more than six or seven hours of sleep or rest each night, if there seem to be no bad effects? I am feeling splendid, scarcely ever get tired, eat well and sensibly and sleep soundly. I spend the day as secretary to an attorney, the early evening hours in a night school, and the later hours in social functions. 2. Might cancer of the breast be inherited?

H. M. G., Nebraska.

Answer.—1. It is true that the amount of sleep needed by different persons varies considerably. For the majority of adults, it is best to have about eight hours of sleep during the twenty-four. The mere fact that one at 19 can get along with six or seven hours sleep a night without any immediate bad effects is not proof that a longer period would not be desirable. It would probably be best to curtail somewhat the amount of time given to social functions, and so get the average of eight hours a day.

2. The evidence as to heredity in cancer is extremely complicated. The best recent opinion seems to be that the problem of heredity in cancer in the human being is not controllable under modern conditions of life.

Superfluous Hair

To the Editor:—For the past year I have been bleaching superfluous hair above my lip daily with peroxide and ammonia, followed with a dash of witch hazel to relieve possible irritation. Lately I have noticed dark hairs appearing on my chin, and to relieve myself of embarrassment temporarily I have "tweezed" them out, only to find that they appeared again in a short while. I realize that to remove a hair in this manner encourages the growth of another. I have been told that the only absolutely reliable way to destroy hair is by electrolysis, which I understand often leaves pitted marks in the skin. My questions are: Shall I visit a dermatologist? If you approve of removing hair by the needle, could you recommend a reliable physician in New York? Will you kindly tell me whether or not the solution I am using to bleach the hair will be harmful in any way to the skin, and whether or not witch hazel has tendencies to encourage the growth of hair? I use only a pure castile soap which I hope does not promote the growth of hair.

E. C., New York.

Answer.—The use of peroxide and ammonia on the lip followed by witch hazel is not likely to do serious harm to the skin. If it did irritation would appear, such as redness, scaling or some similar sign, indicating that one should then give up use of the solution.

Jerking out of the hair as described seldom destroys the hair follicles. The best way to destroy the follicles is by electrolysis, which if skilfully used does not usually leave pronounced marks. Even when marks are left they are less objectionable than the results of any other procedure.

There is little choice among the good soaps on the market. Any bland, uncolored, unscented soap is satisfactory. If the use of any particular soap is followed by evidence of irritation of the skin, of course the sensible thing to do is to stop using it. If the family physician cannot recommend a dermatologist one can safely inquire of any one of the leading medical schools in New York City.

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protect your baby
from loose pins and buttons

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BETTER GET EIGHT HOURS SLEEP EVERY NIGHT

Great men who appear to remain healthy although they get only four or five hours of sleep out of twenty-four hours are exceptional and their example is not a good argument in favor of less sleep for the average person, observes the health commissioner of Milwaukee, Wis.

The amount of sleep actually needed depends on the individual, but the average person needs eight hours every night. The human body accumulates poisonous waste products during its waking hours, which lower its vitality. Only during sleep can these products be eliminated more rapidly than they are being produced.

The body needs more sleep in winter than in summer, because it gets less sunshine, less outdoor air and exercise. Many persons actually get less sleep in winter, however, because club and social activities are at their height in winter. Many cases of tuberculosis, pneumonia and nervous exhaustion are caused by late hours simply because no one can work all day, stay up till midnight or later and be at work early the next morning without making himself an easy victim of disease, this health officer warns.

TEACH HEALTH IN TWO LANGUAGES

Health talks to school children in New Mexico have to be delivered in two languages—unless the speaker knows Spanish. In the mountain schools of Bernalillo County, New Mexico, a health officer is giving a series of health talks, which he delivers in English and a Spanish speaking sanitary inspector interprets sentence by sentence to the audience.

In some of the schools the talks on hygiene are being used as the basis for English lessons. A health score card is also being introduced in these isolated spots for the first time, the bulletin of the state bureau of health relates.

Sanitary conditions in the mountain schools are primitive. A sanitary survey now in progress has already accomplished some reforms. The common dipper and drinking cup have been replaced by crockery water coolers and individual drinking cups. In a number of places outdoor toilets have been rebuilt and in others they have been rendered sanitary, the bulletin reports.

Every teacher should have a working knowledge of the principles of health conservation and of disease prevention.

All School Children Need
Shampoos Weekly

The safe and easy way to keep little heads radiantly healthy and free from the infestations so easily caught at school or play is by thorough weekly shampoos with

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Recommended by Boards of Health and of Education all over the U. S. Booklet on proper care of Children's hair, prepared with the help of experts, sent free on request. Also educational film for club meetings and schools.

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RINGWORM INFECTION IS EASILY ACQUIRED

Ringworm of the hands and feet, caused by a vegetable parasite, is the subject of a bulletin from the U S. Public Health Service warning of the prevalence of this annoying condition.

Almost every one who uses a swimming pool, a golf club, an athletic club or any place where there is a common dressing room has the infection on his feet, this bulletin declares. It is usually acquired by walking barefoot where infected persons have trod. Bath mats are blamed for spreading it.

The organism that causes ringworm is remarkably resistant, for it takes at least fifteen minutes of boiling to kill it. It appears to burrow deep into the skin and is difficult to kill. There is no form of treatment that is effective to any great degree. Light doses of x-ray are frequently of benefit, but they do not prevent the disease from returning.

A person with ringworm should not use a bath mat. It is wiser to step on a piece of newspaper and burn that. He should have his own towels and soap, and his socks, slippers and shoes should be worn by no one else. He should not walk about barefoot anywhere.

In its mildest form the disease exists as either a little cracking or a little scaling between the toes. The so-called soft corn is sometimes really ringworm infection. Other types of lesions are those in which there are either few or many blisters, a diffuse scaly eruption and, lastly, wartlike growths.

SEASON OPENS FOR GAS POISONING

Deaths from carbon monoxide are beginning to be noted in the daily press and health officers are issuing their annual warnings to automobile owners and householders who use gas burners that produce this deadly gas.

Carbon monoxide is odorless and colorless and thus gives no warning of its dangerous nature. Idling an engine to warm it in a one-car garage may so contaminate the air as to make it fatal to life within from five to ten minutes. Gas heaters or ranges are equally dangerous when combustion of the gas is incomplete.

Test all such heaters and burners for leaky valves, defective connections with insufficient air for complete combustion; see that exhaust pipes are provided and never run an automobile in a closed garage, urges the bulletin of the Connecticut health department.

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but also the minerals, vitamins and great body-building proteins

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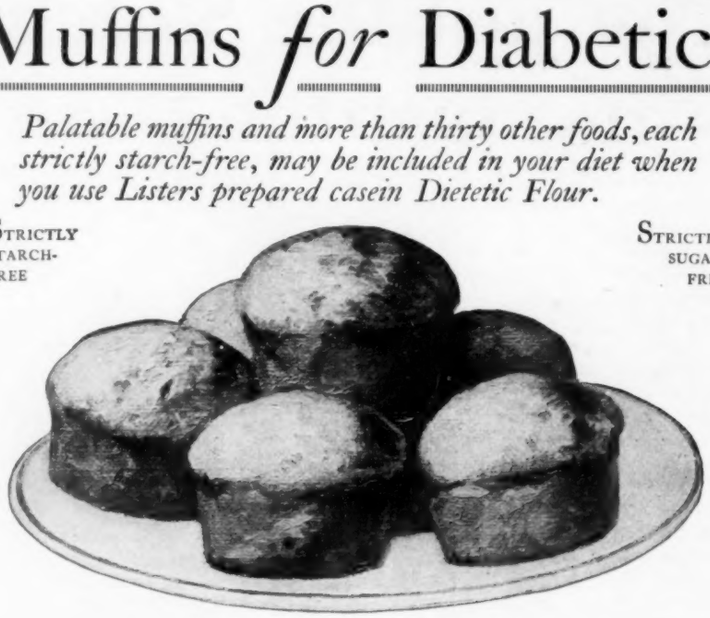

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WHY THE COMMON COLD IS SERIOUS

An impressive list of reasons why the common cold should be taken seriously is culled from *The Crusader* of the Wisconsin Anti-Tuberculosis Association:

1. It partially disables the average person for from four to six weeks during a year.
2. It is very contagious and therefore affects the majority of people.
3. It causes loss of time in school and in business.
4. Middle ear disease, frequently due to the common cold, often results in impaired hearing.
5. The common cold may spread into the mastoid bone, necessitating operation and occasionally spreads into the brain coverings with fatal results.
6. It may affect any of the sinuses of the skull, causing prolonged suffering.
7. Preventing the spread to others by isolation of the individual with a cold is the most important measure.
8. Children should not attend school or play with other children during the acute stages.
9. Absolute rest in bed may prevent serious complication.
10. If symptoms continue, consult a physician.

ANALYZES PARENT-CHILD RELATIONSHIP

The major satisfaction of parenthood should come not from doing for children but from developing their ability to do for themselves, Dr. Frederick H. Allen said in a recent address in which he analyzed the elements necessary for a normal relationship between parent and child.

Parents must recognize that a child's problems are just as important from his point of view as are those of later periods. They must maintain a broad perspective so as not to become overserious about what the child is doing. The third element is the inquiring attitude of mind that seeks to understand the child's behavior. Fourthly, parents need the element of elasticity in their philosophy to adapt their point of view to the ever changing behavior of the child.

Those who can incorporate these elements into their philosophy about their children will be saved many of the perplexing problems that can arise in the development period of their children.

Give me intelligent motherhood and good prenatal conditions and I have no doubt of the future of this or any other nation.—*Rt. Hon. John Burns.*

COMMITTEE CONSIDERS DEAFENED CHILD

Modern programs of health conservation must include work for the prevention of deafness and both medical and educational provisions for the deafened, since the latest investigations show that 10 per cent of the school children in the United States are deafened.

This is the recommendation of a joint committee on health problems in education of the National Education Association and the American Medical Association, which made a study with the cooperation of the American Federation of Organizations for the Hard of Hearing and the New York League for the Hard of Hearing.

There has not been a general recognition of the possible relation between slight hearing defects and supposed dulness in school. It is not implied that all backward children have hearing defects nor that all children with hearing defects are retarded, but careful studies show that many children with defective hearing have to repeat their grades.

The effect of repeating grades is twofold. First, the children become discouraged and usually leave school without the education they should have. On the other hand, the repetition of grades is expensive to the school system.

Old methods of testing, such as the child's ability to hear whispered speech, a watch tick or tuning forks, took so long that little has been accomplished. With the introduction of the audiometer it has become possible to test large groups of children simultaneously, and far more accurately.

The committee believes that ultimately ear clinics will be established in schools for the medical treatment of deafened children. For the present it recommends the immediate use of certain measures that are within reach of every school. These are: good lighting, seats in the front of the room in the best position to read the lips of the teacher, and lip-reading instruction.

Teachers should watch for hearing disorders, see that parents or guardians are informed of such difficulties and recommend that the children be sent to competent ear specialists or to an ear clinic.

The committee further recommends a uniform law requiring annual examination of the hearing of all school children as a part of a general health examination in all states and cities.

Whose teeth will you be wearing when you are 40?—*American Dental Association.*

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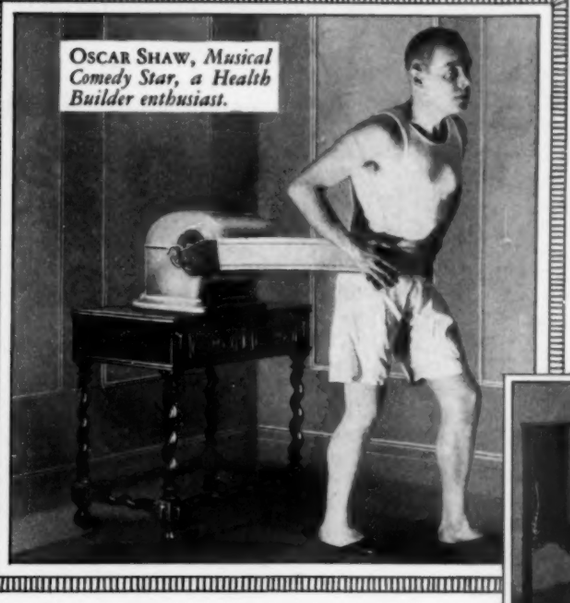

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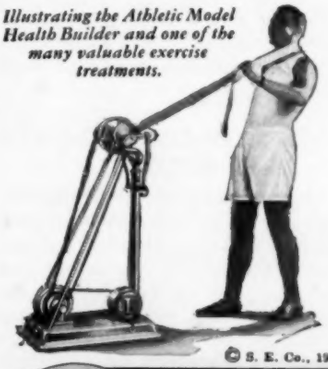

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Sedate couples from the hometown mingle, unsuspecting, with crooks, behind a screen of jazz, gin-fizzes and dancing girls. This article was born from a year's study by the Committee of Fourteen.

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AFTER-CARE FOR VICTIMS OF INFANTILE PARALYSIS

A systematic effort to give after-care to victims of infantile paralysis in California was recently described by Dr. W. M. Dickie, state health officer, in *The Journal* of the American Medical Association.

In the early acute stage of the disease absolute rest is necessary and every precaution should be taken to prevent movement of the patients. Massage, manipulations or electrical treatments must not be used during this stage.

During convalescence a carefully planned program of treatment prescribed by the physician after complete examination of the muscles has been found beneficial. In California a trained physical therapist aided in the formulation of muscular exercises and trained some one in the home to give them under the supervision of the family physician.

After-care in a case of infantile paralysis extends over a period of from a few months to two or more years. Recovery as a result of after-care depends largely on the intelligence and persistence displayed by those responsible for carrying out the treatment. The greatest difficulty is to prevent the exercises from becoming irksome to the patient. This may be accomplished in part by varying the exercises and introducing games suitable to bring about the muscular action desired.

Results of this work, which is carried on in California under a Crippled Children's Act passed in 1927, have thus far been gratifying, Dr. Dickie reports. Better care during the acute stage and supervision of the patient throughout the convalescence have undoubtedly lessened the number of cripples from infantile paralysis. Dr. Dickie predicted that the future management of these cases will reduce the number of cases of permanent paralysis and should eventually eliminate deformities as a result of the disease.

CHILDREN ON CANAL BOATS MISS SCHOOL

A thousand children of school age live on canal boats that navigate the inland waterways of England and their education is a serious problem to the government. A canal boat is continually traveling and remains for only a few days even in its registration port, which is the legal residence of the family. These children go to school for about twenty half-days a year, a report in the bulletin of the Children's Bureau states. It has been suggested that traveling teachers follow the boats from port to port.

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The "OVR-NITE" HEATING PAD

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Prepared with one ounce of hot water. Stays hot 15 hours

Its soothing heat quickly reaches the spot and relieves the pain.

The "OVR-NITE" Heating Pad is invaluable in relieving pain in Neuralgia, Neuritis, Ordinary Tooth-Aches, Menstruation and other conditions where heat is required.

Ready for use almost immediately on addition of the water. Retains a temperature of 170 to 175 degrees for fourteen hours.

It is soft and pliable and can be comfortably applied to any part of the body.

There is no possibility of leakage with the "OVR-NITE" Heating Pad. It stands the test of usage and age. 135 hours' heat guaranteed. Pad with washable rubberized cloth cover, $1.00, sent prepaid on receipt of remittance. Additional pads without rubber cover, 60c, sent prepaid.

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TO AVOID SPOILING YOUR CHILD

Parents who are spoiling their children will do well to stop and consider the underlying causes of the spoiling and the results of it, as analyzed by Dr. George K. Pratt:

1. Most selfish, disagreeable, conceited or unreliable adults were once spoiled children.

2. Remember that what your child is in temperament, up to 10 and 12 years of age, usually indicates what he will continue to be all the rest of his life. Temperaments are molded, not born. You, as his parent, can mold him during these flexible years into almost anything you desire.

3. A spoiled child generally means he has selfish, neurotic or thoughtless parents.

4. Begin your antispoiling methods early. A child can be as thoroughly spoiled at 2 months as he can at 4 years.

5. Don't always do for your child those things he should learn to do for himself.

6. To "give in" habitually to your child is not an evidence of real mother love. More likely it is proof that you prize your own immediate comfort above the child's welfare.

7. Don't "show off" your child before company. Even tiny babies soon learn by this to demand excessive attention.

8. Don't determine to give your child all the luxuries and advantages you may have lacked in your own childhood. Make him earn some of them.

9. Give him some responsibility each day and insist that he carry it out. This encourages self-reliance and fosters pride of achievement.

10. All praise and no blame makes Jack a conceited boy. Praise your child when he merits it, of course. But don't forget the beneficial effects of occasional constructive criticism, or even punishment.

GOOD AIR IS NECESSARY FOR HEALTHFUL SLEEP

Good air in sleeping rooms is as important as the amount of sleep necessary for health. By good air is meant not only air that is free from impurities, but air that has the proper moisture content and a certain amount of motion.

Many of the so-called catarrhal conditions of the nose and throat are caused by dry, warm air of sleeping rooms, in the opinion of the health officer of Milwaukee, Wis. The best plan is to turn off the heat, close the doors and open the windows at night. Of course there must be plenty of cover to keep the body warm and one must dress and undress in a warm place.

Baby's Gaining—

THE modern mother does not guess about Baby's condition, she checks his weight every day, and keeps a record of how he is thriving.

Nason's Cod Liver Oil with its high vitamin A content is an important factor in promoting growth and developing resistance to infection.

Nason's palatable cod liver oil is required to have a content of fat soluble vitamin A, determined by the U.S.P method, of not less than 500 units per gram, and an antirachitic potency such that 0.02 Gm. per day will produce definite healing in the leg bones of rachitic rats.

Each lot of Nason's Cod Liver Oil is biologically tested in our own laboratories to make sure that it conforms to our high standards of vitamin potency.

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Are Alienists Always Right?

Two gunmen held up an office and escaped. The police arrested two boys for the crime. But when one of the real crooks tried to confess, a famous alienist staged an investigation and testified that the confessor lied! The result was that an innocent man went to prison. Read "An Alienist Proved I Was a Liar!" by "No. 7726" (Arthur Lindsey) in the January

PLAIN TALK

In the same issue

Voronoff on Sex Rejuvenation.....George Sylvester Viereck

Can Diplomacy Be Honest?.....Walter C. Langsam
Not if success is the goal of the diplomats

Are Husbands Worth Keeping?.....The Other Woman
Well, at least they solve the economic problem

The City Manager System.....Peter H. Odegard
Its popularity and its shortcomings

Grafters I Have Met.....Hon. Charles U. Becker
A gentleman from Missouri shows up some peanut politicians

Ticker Hounds.....O. H. Eppersch
How the market wins over the penny-ante speculators

***In the January* PLAIN TALK**

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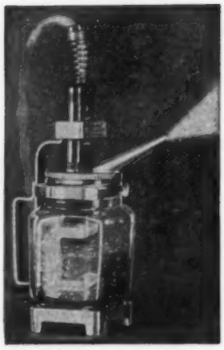

of steam or medicated vapors is frequently prescribed for relief of colds and other forms of congestion. Have you a convenient means of carrying out such a prescription? Or, must you depend on makeshifts? Be prepared with an

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All that is necessary is to place a solution in the container, turn on the current and in a few seconds you have an ample volume of steam or vapor. Nozzle arrangement gives perfect control and permits application of steam in a most effective manner. Perfectly safe. No fire hazard. Current automatically shuts off after liquid boils out.

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SPRINGFIELD, MASSACHUSETTS

JOHN EARLY RELEASED FROM LEPROSARIUM

Leprosy, the dread scourge of the ages, is gradually coming under control in the United States. Public attention has at various times been called to the problem through the eccentricities of one John Early, a leper who rebelled against his fate and repeatedly escaped from the U. S. Leprosarium at Carville, La.

In the middle ages a burial service was read in English churches over a leper going away for hopeless segregation. Last month the patients at the national leprosarium practiced a ceremony of rejoicing over the discharge of John Early from the institution, a cured patient.

In April, 1927, Early departed by stealth from Carville to his old home in North Carolina. Eluding every effort of the U. S. Public Health Service to apprehend him, Early excited the sympathy of North Carolinians to the extent that the inhabitants of his home town presented a petition to the surgeon-general, requesting that he be allowed to spend the rest of his days in the Carolina hills.

The surgeon-general was unable to grant the request and Early returned again to Carville, where he finally yielded to treatment. For more than a year microscopic tests of his blood and tissues have been negative for the leprosy germ. He appears in good health and there is scant danger of his relapse, according to the account of the case published in *The Journal* of the American Medical Association.

Of thirty-one lepers discharged from the leprosarium at Carville since the U. S. Public Health Service took charge of the institution in 1921, only one has suffered a relapse. At that time the surgeon-general ruled that the period of observation before release should be lengthened and that patients should be examined every six months for three years after leaving the leper home.

TAKING THE CLINIC TO THE PATIENT

Traveling tuberculosis clinics equipped for examining patients in rural districts in which medical aid is not readily available have recently been introduced in certain provinces of Italy. The clinics are in charge of physicians, each with two or more assistants. School children are examined and treatment prescribed, to be carried out by local authorities. Adults with tuberculosis are also examined and provision made for their care if they are not under medical treatment.

DONORS SELL BLOOD FOR TRANSFUSION

When breathing begins to be jerky and the pulse begins to lag in a patient on the operating table, nothing so quickly buoys up the low vitality as a transfusion of blood. Transfusions are equally beneficial after severe loss of blood, in some forms of anemia, in profound infections and for undernourished infants.

Although transfusion of blood is such a familiar procedure few persons are aware of how it is made possible and just what is done. Dr. C. F. Finsterwald describes the methods used.

There is almost always a relative or friend ready to give blood for a sick person, but in many cases the blood is not suitable. First it must be tested for disease. Then it must be classified and it can be used only if it belongs in the same type of blood as that of the patient. If it harmonizes it can then be mixed with the patient's blood outside the body and tested for clotting of the cells. If clotting does not occur, then the transfusion may be made safely.

Most transfusions, however, are made possible by men who sell their blood as professional donors. In most cities there are agencies at which a donor may register for call whenever his type of blood is needed.

The donor usually has no apparent symptoms, but he may go so far as to faint. Donors must be watched lest they give blood faster than they are able to produce it. This may endanger their health.

The best methods of making transfusions employ an outfit consisting of hollow needles, small rubber tubes for connecting and a measuring syringe of glass and metal, all thoroughly sterilized. The syringe, through which all blood must pass on its way to the patient, is graduated so that the amount of blood as well as the rate of flow is under perfect control at all times.

TRAIN WORKERS TO TEACH FIRST AID METHODS

Intensive courses in first-aid are offered to selected men from industrial plants by the Chicago Chapter of the Red Cross. For a week these men are given lecture work, demonstrations, practice work and oral quizzes. They are also taught something about methods of teaching to qualify them to teach first-aid methods in their plants. Men who have an interest in safety and men who are responsible for the handling of injured men enroll for these courses and the percentage of success has been high, the chapter reports.

"A Stimulating Contribution to the Field of Physical Education"

—*Alice Evans, HYGEIA.*

CORRECTIVE PHYSICAL EDUCATION FOR GROUPS

By CHARLES LEROY LOWMAN, M.D., F.A.C.S., Chief of Staff, Orthopedic Hospital School, Los Angeles; CLAIRE COLESTOCK, A.B., Assistant Director of Physical Education, Pasadena; and HAZEL COOPER, Pasadena High School. Price $4.50. 8vo, Cloth. Fully Illustrated.

This new book comes as a welcome solution to the problem of organizing and providing corrective exercises in schools and colleges. It supplies in carefully organized form both theory and practice. It deals with the need for corrective exercises. It presents the fundamentals of body statics. It outlines methods for examination and checking of results. It discusses classification, equipment and methods of organization, discusses in detail the fundamental positions for corrective work with illustrative photographs, and furnishes a series of schedules covering work for restrictive and corrective use, and special exercises for specific conditions of high school, junior high and elementary school students.

(Abstracted from Miss Evans' review in September HYGEIA)

"The finest contribution yet made to the field of Corrective Physical Education, because of the fact that it deals with methods that can be used for the masses in the educational field."

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"Besides containing plenty of material of theoretical nature, it has the advantage over other books of the kind, of adequate schedules, of exercises for students to practice upon each other and upon the subjects we bring in for treatment."

—Prof. W. P. Bowen, Ypsilanti, Michigan.

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For the Physically Defective Individual

PREVENTIVE and CORRECTIVE PHYSICAL EDUCATION

By GEORGE T. STAFFORD, Director of Department of Corrective Physical Education, University of Illinois. With Foreword by J. Howard Beard, University Health Officer. Fully Illustrated. 8vo, cloth. Price $3.00.

The aim of this book is to furnish the reader with necessary information for giving the physically defective individual the proper type and amount of physical education to meet his needs and capacity. Stress is laid on the practical side of the work. Mr. Stafford's experience as a teacher and director in schools, the University, and the U. S. Army, forms the basis for the material. The book is fully illustrated.

"The problems discussed are of general interest, since they trace back cause and effect into childhood and cover in a brief but effective way the considerations for wholesome development."

—Alice Evans, November, 1928, HYGEIA.

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Armpits Dry and Odorless

No more perspiration ruined dresses!

NONSPI *(an antiseptic liquid)* will keep your armpits dry and odorless—save your lingerie, dresses and gowns from ruinous perspiration stains—and give you a feeling of comfort which you cannot enjoy if you are a victim of excessive armpit perspiration.

NONSPI, used and endorsed by physicians and nurses, does not stop perspiration. It destroys the perspiration odors and diverts this perspiration to parts of the body where there is better evaporation.

Wouldn't you like to be sure that you are free from armpit odors—that your clothing was protected from destructive perspiration stains? A few drops of NONSPI applied to the underarms on an average of twice a week will protect you and your clothing.

More than a million women keep their armpits dry and odorless by using NONSPI. It is a year around toilet requisite for fastidious women. They use NONSPI spring, summer, fall and winter.

A 50 cent bottle of NONSPI lasts several months. Get it from your department or drug store. If preferred, we will mail you a bottle postpaid for 50 cents (we accept postage stamps) or will mail a testing sample free.

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POINTS OUT DANGERS OF WHOOPING COUGH

Whooping cough is often the forerunner of pneumonia and tuberculosis in older children and is extremely dangerous of itself to small children. More than 95 per cent of all deaths occurring from whooping cough occur in children under 5 years old.

In spite of these grim statistics whooping cough is not regarded seriously by many parents, and they do not take proper precautions to prevent it from spreading among children.

Whooping cough is probably the most difficult of all diseases to control. It is most communicable during the early stages, yet that is the time when it is hardest to distinguish from an ordinary cold.

Responsibility for preventing the spread of whooping cough rests primarily on the shoulders of parents, the health department of New Mexico insists. If parents will keep their children away from others when they have colds and if they will call a physician if the cold persists more than a few days, contact between the sick and the well will be broken and the disease will not spread.

RECREATION FACILITIES ARE BUSINESS ASSETS

The selection of locations for manufacturing plants is generally influenced nowadays by the recreation facilities that a town offers, the president of the U. S. Chamber of Commerce told the congress of the Playground and Recreation Association of America.

The speaker told of a midwestern town which was deeply disappointed at not being selected for a large plant. When the chagrined business men asked why, they were told that their town offered less in the way of public recreation than any of the other towns under consideration. It had no public parks, no municipal bathing facilities, no organized summer and winter recreational activities and it was felt that such a condition would make for discontent among the workers and would therefore carry too great an element of risk in holding labor.

The sequel to the story was that the local leaders began a movement at once to secure a bond issue of $100,000 at the next city election for municipal recreation.

The foolish custom of carrying susceptible babies where crowds have assembled, and of exposing them unnecessarily to communicable infections, is responsible for the presence in the schoolroom of many who wear mental handicaps.

MEDICAL ADS PERSIST THROUGH CENTURIES

Medical advertisements, which lure the unwary sufferer from the pages of those newspapers and magazines that are not too scrupulous, are not a development of the twentieth century, or even of the nineteenth. In the *General Magazine and Historical Chronicle* of the University of Pennsylvania, Dr. Samuel Horton Brown traces the history of medical advertisements and offers some choice bits culled from handbills and magazines of two hundred years ago.

Present-day courses in memory training are not more flamboyant than the following which appeared in no less a periodical than the famous *Spectator:*

"Loss of Memory, or Forgetfulness, certainly cured by a grateful electuary peculiarly adapted for that end; it strikes at the primary source, which few apprehend, of forgetfulness, makes the head clear and easy, the spirits free, active and undisturbed, corroborates and revives all the noble faculties of the soul, such as thought, judgment, apprehension, reason and memory, which last in particular it so strengthens as to render that faculty exceeding quick and good beyond imagination, thereby enabling those whose memory was before almost totally lost, to remember the minutest circumstances of their affairs, etc., to a wonder. Price 2s. 6d. a pot. Sold only at Mr. Payne's at the Angel and Crown, in St. Paul's churchyard, with directions."

PORTO RICO REBUILDS AFTER DISASTER

Homes and gardens are fast replacing the devastation wrought by the recent hurricane disaster in Porto Rico, according to a report in the *Red Cross Courier.* The largest item of expenditures in the relief work has been for rebuilding homes, a total of $769,790.

A planting program handled by the Red Cross in collaboration with the departments of agriculture and education of the Porto Rican government involves 25,000 families. To each family in the lowlands has been distributed 10 pounds of maize, 5 pounds of beans and one package each of cabbage, onions, lettuce and carrot seeds. In the higher elevations cowpeas were substituted for maize.

With each package of seeds was enclosed a statement urging careful planting and nurturing of the gardens and pointing out particularly the health benefits to be gained by eating the vegetables.

Some *common sense* about toothpaste

Read what this authority says on a subject that has become confused in many minds.

"The only function of a dentifrice is to aid in the mechanical cleansing of the teeth without injury to them . . . the antiseptics and drugs incorporated in many of the widely advertised dentifrices are valueless, neither curing nor preventing disease."

From an article in "Hygeia" Nov. 1928

DENTISTS and physicians recommend a dentifrice for one purpose only—*to clean teeth safely.*

That is the one thing *you* can do for your teeth. If you think your mouth needs treatment, see your dentist at once—that is *his* job. Don't rely on a dentifrice to correct conditions of teeth or gums—its function is simply to *clean.*

Teeth kept thoroughly clean are likely to be healthy teeth in a healthy mouth. And healthy teeth are apt to be pretty.

This is directly in line with modern thought. Today leading authorities on the care of skin, hair, teeth advise that the most effective means of safeguarding natural beauty lies through utter cleanliness.

Made as Dentists Advised

Before we decided upon the Colgate formula, we went to the dentists and asked: "What kind of dentifrice would be best for dental health and beauty?" Their answer was: "Make a toothpaste that really cleans. If a dentifrice cleans thoroughly, it does not need to do anything else. Drugs, strong antiseptics and harsh abrasives are all unnecessary and sometimes dangerous."

Upon this fundamental principle, we created a dentifrice of maximum cleansing power—yet so mild and pure that it cannot harm even the most delicate teeth.

Why Colgate's Cleans Better

Colgate's contains the most effective of all cleansing agents—in a special, mild, pure form . . . combined with calcium carbonate and aromatic oils.

As you brush Colgate's upon your teeth, the cleansing agent forms a bubbling, sparkling foam. This cleansing foam penetrates between the teeth, reaches inaccessible surfaces, purifies and stimulates the gums . . . the entire mouth.

And carried by this searching, foaming wave, the fine calcium carbonate powder helps to clean away mucin and food deposits . . . polishes tooth enamel to shining smoothness . . . sweetens all the mouth surfaces. The mildly antiseptic aromatic oils add refreshing action to the thorough cleansing.

FREE—We have a trial tube of Colgate's for you. Fill out and return the coupon and it will be mailed promptly. We will send also a copy of an interesting new booklet on care of the teeth and mouth.

—and Only 25c

Colgate made the original 25c tube of dentifrice. It is today the largest selling toothpaste in the world. Due to this enormous volume production, and to the resources of a hundred-million-dollar business, Colgate commands the finest materials and the widest scientific research to safeguard *quality.* And, as far as we have been able to find out, Colgate puts *more* dentifrice into the famous 25c tube than is found in any other make priced at a quarter. That's *value!*

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Please send me the booklet, "How to keep Teeth and Mouth Healthy" and a trial tube of Ribbon Dental Cream, free.

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CHILDREN IN APARTMENTS

Perpendicular walls, tier upon tier of windows, but no place where children can play in the open.

If this fits your case get

THE "BUSY KIDDIE"

a complete gymnastic set for children from 3 to 8 years old. Can be hung up in any doorway without using treacherous, unsightly screw eyes. Won't mar the wood work.

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"BUSY KIDDIE" HANGER

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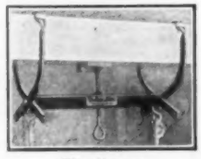

The Hanger

Swing, trapeze and flying rings are all hung from this one HANGER which can be fastened in place or released by the turn of a thumb screw. Won't mar wood work. Tested to 350 lbs.

See Hanger Overhead

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A "BUSY KIDDIE" Set—hanger, swing, trapeze and rings, complete—costs $7.75. Ask your department store, toy store or sporting goods dealer for the "BUSY KIDDIE"—the set with the HANGER. Also sold direct.

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GERMANS TO REBUILD HEALTH BY EXERCISE

Physical education and physical training are looked upon as the salvation of post-war Germany in its efforts to rebuild the health of the nation. The casualties of war, the declining birth rate and the long period of undernourishment following the war have seriously affected health and the whole population has turned to sports with eager enthusiasm, says a German teacher now in the United States on an exchange professorship.

School children have three hours a week of physical instruction and two hours of organized games throughout elementary and high schools. Ninety per cent of them leave school for work at the age of 14. Of the group that left school in the spring of 1928, it was found that 27 per cent were suffering from tuberculosis. These are the first of the children born during the war and brought up under its hardships.

These young workers rush to public parks as soon as their work is finished to get exercise in the open air, the visiting teacher writes in *School Life*. Adults fill the public gymnasiums and stadiums, where instructors are provided for 25 cents an hour, which also pays for dressing room and shower.

Sunday is largely spent outdoors by young people in Germany. Thousands tramp to the mountains, hiking, skiing or cycling all day and having meals at the "rest houses" that have been established all over Germany in romantic ruined castles and monasteries that have been rebuilt.

FRAMEWORK GOVERNS NORMAL WEIGHT

The size of the bony framework is more important than height in determining what a boy or girl should weigh, Dr. Raymond Franzen reported as the conclusion of recent research which he described before the American Child Health Association at its annual convention in Chicago.

Body framework may vary not only in height but in width and thickness. The wide framework can carry and is meant to carry more weight of flesh and fat and organs than a narrow framework, even though the height is the same. For this reason the other measurements must be taken into account in calculating weight. Dr. Franzen has devised means for doing this which will make height-weight tables more accurate in the future, he announced.

An ounce of fresh air is worth a pint of cough syrup.

JACKSON'S SANITARY THUMB GUARDS

are endorsed by leading child specialists. They will cure thumb-sucking quickly and permanently —satisfaction GUARANTEED.

Free—Send for booklet entitled "THUMB-SUCKING—ITS DANGERS—ITS CURE."

CHILD WELFARE GUILD, INC., Dept. 19

Drawer U, Yale Station, New Haven, Conn.

VISUAL ILLUSIONS

UNDER the title of "Visual Illusions of Motion," W. G. Miles, Professor of Experimental Psychology at Stanford University, writes about the mistakes that the eye makes. This subject is treated under the following sub-titles:

The Bystander's Illusion of Motion
Seeing Movement in the Motionless
The Puzzling After-Effect of Movement
The Dark Spook and His Speed
The Movies Just Appear to Move
The Train Traveler's Illusion of Motion
The Illusion of Shrinking and Sinking
The Illusion of Twisting and Revolving
The "Waterfall Illusion" Seen Sidewise
Reading on the Train
On Riding Backwards and Forwards
Which Train has Started?
The Illusion of Sharp Vision During Motion
Two Visual Devils
Grabbing an Eyefull
Movement and Experience

The above article is only one of a number which would interest the readers of *Hygeia*. Some of these are "Transplantation of Organs," "Physiological Evidences of Evolution and Animal Relationships," "Photoelectricity," "Sound Perception in Insects" and "Will the Negro Survive in the North?"

An article scheduled to appear in an early number of THE MONTHLY is that by Dr. Christian A. Ruckmick, Professor of Psychology at the University of Iowa, entitled "Why We Have Emotions."

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THE SCIENTIFIC MONTHLY

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John Warren Will Have Good Teeth

GOOD teeth are not entirely a question of a fortunate heritage as most people are inclined to believe. Rather they are the result of proper living and continuous and intelligent care.

True it is that some few people seem to have fine teeth naturally, but for every such exceptional case there are thousands who have developed fine teeth through care and competent dental aid.

To keep the teeth clean is of first importance. To have cavities filled as soon as they can be discovered is the next step. Many cavities your dentist will find easily with his mirror and instruments. Others between the teeth are very difficult to discover by these methods until they become enlarged. By means of the x-ray picture, however, they may be located as soon as they begin to form. Their size and shape are accurately recorded. Much extensive work is eliminated by such early discovery.

But, attention to cavities is but one part of the program. Proper spacing and alignment are essential for they not only assure efficient mastication of food and greater ease in keeping the teeth clean but greatly improve the entire facial appearance.

While the child still has his first teeth is the best time to begin work for attaining correct spacing and alignment of the permanent teeth. X-rays taken at this time clearly show the position of the unerupted teeth. They indicate when a "baby" tooth should be pulled in order to let a second tooth come through properly. If straightening becomes advisable, the orthodontist will be guided by the x-rays in planning his treatments. This early care is of utmost importance if good teeth are to be developed.

And so, we say, that little John Warren, who, as you see in the illustration, is having his teeth x-rayed, will have good teeth.

EASTMAN KODAK COMPANY, 343 STATE STREET,
Rochester, N. Y.

Gentlemen:

Please send me "How X-rays Aid the Public."

Name.....

Address .....

LET IN THE SUNLIGHT

FROM ninety million miles away, the body building ultra-violet rays of the sun come as messengers of health . . . and are stopped just outside the home by ordinary glass. Let them in through HELIOGLASS.

It is within the reach of all. No substitute for sunshine costs so little or serves so well as this glass which lets in the real sunlight.

HELIOGLASS is a window glass, which through special manufacturing methods, has been made permeable to the health building ultra-violet rays. It is permanent and priced to allow its general use.

It should be in the windows of at least one room in every home. Write for descriptive folder.

PITTSBURGH PLATE GLASS CO.
PITTSBURGH, PA.
Warehouses in Every Principal City in the United States

BOW LEGS AND KNOCK KNEES

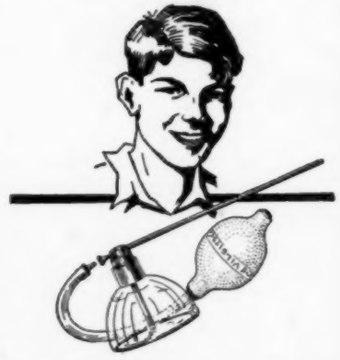
Every normal infant is bow legged before he learns to walk and every child is knock kneed when he is about 3 years old. These facts are emphasized in an article by three California physicians in *The Journal* of the American Medical Association.

Fear of bow legs in children causes many parents unnecessary worry and infants much unhappiness. When a baby first learns to stand up he must gain stability before he can walk. Therefore he stands with his feet wide apart, his knees locked and his head and body thrust forward to maintain his balance. Only with improving coordination does he walk like an adult.

Parents should first assure themselves that these seeming deformities are not inherited family characteristics. Nutrition has an important bearing on postural development. Acute infection induces muscle weakness that may lead to serious posture changes. Parents should watch these factors closely.

Postural development is also influenced by shoes, clothing and beds. Shoes and socks that are too short force the feet into unnatural positions. A well fitting, flexible soled shoe is of the greatest importance for the toddler, say these physicians. A daily period barefooted is helpful.

The airtight dwelling leads but to the grave.



For Children, Too!

Snow time is a happy time for youngsters!

Don't let coughs and colds mar winter's healthy pleasures.

If the daily hygiene calls for spraying of nose and throat, remember there is a DeVilbiss for every individual requirement.

The DeVilbiss Company
TOLEDO, OHIO